What are the Risk Factors for Suicidal Behaviours Amongst Young University Students Aged 29 years and Under?

Larissa Barnett

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Thesis declaration form

I confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Signature: 

Name: Larissa Barnett

Date: 16.06.2020

Overview

This thesis is concerned with understanding the risk factors for suicidal behaviour amongst young university students in the UK. It forms one part of a joint doctoral thesis project (see Adams, 2020).

Part one reviews the evidence for the recent 'ideation to action' models of suicide, as well as the theories that have led to their development, amongst young people aged 29 years and under. The constructs of the Interpersonal-Psychological Theory of suicide (IPT; Joiner, 2005) emerge as the most researched, and empirically supported, risk factors amongst young populations. However, the concepts of the IPT do not always relate to youth suicide in the ways that the model predicts. Research exploring the Integrated Motivational-Volitional model (O'Connor, 2011) and the Three Step Theory (3ST; Klonsky & May, 2015) amongst young populations is sparse and limited by cross-sectional designs and methodological decisions.

Part two explores the constructs of the 3ST and the IPT as risk factors for suicidal behaviour amongst 355 young UK university students. Perceived burdensomeness, psychache and depression are identified as particularly relevant to suicidal behaviours amongst this population. Psychache is also found to fully mediate the relationship between maladaptive perfectionism and suicidal ideation. Implications are discussed.

Part three offers a critical appraisal of this thesis. It discusses the challenges of time encountered throughout this project and reflects on the real-world implications that these challenges may have on research and clinical practices. It also reflects on the researcher's personal contexts and how these may have impacted on the project.

Impact Statement

My hope for this research is that it will raise awareness of the important and on-going need to support and prevent suicidal behaviours amongst university students. Government statistics have indicated that university students are at a lower risk of suicide compared to aged-matched controls (Office for National Statistics [ONS], 2018), a finding which may have the effect of dissipating concern or interest in student suicide. Nonetheless, these statistics indicate that suicide amongst university students may be rising. This is particularly concerning considering that, for every individual who dies by suicide, more than 20 people will attempt suicide (World Health Organisation, 2020) and even more people will struggle with experiences of suicidal thinking (Nock et al., 2013). Indeed, a recent study looking at suicidal behaviour amongst UK university students reported much greater rates of suicidal ideation and attempts (Eskin et al., 2016) compared to the government statistics on death by suicide. Thus, efforts to develop more effective interventions and prevention strategies continue to be important, not only to prevent increases in suicide amongst young university students but to support the significant distress that accompanies these experiences.

Second, I hope to draw attention to the scarcity of research which has explored the validity of the recent ideation to action models amongst young people, in order to motivate research efforts to fill this gap in knowledge.

Third, the findings of this study may be used to influence the practices of mental health professionals working within universities and clinical services. Specifically, assessment and support around experiences of perceived burdensomeness, psychache and depression may be particularly helpful in understanding and supporting the suicidal experiences of young university students.

Importantly, I hope that this research will stimulate thought and evaluation of the systems and practises that may influence university student cultures. Given that in this study, 75.5% of all students met criteria for maladaptive perfectionism, and considering that perfectionism predicted psychological pain (a proximal cause of suicidal ideation), university institution providers may wish to consider ways to reduce perfectionist strivings amongst students. One way to achieve this might be to remove university grading systems, instead opting for pass and fail marks, as is done in many postgraduate Psychology Doctorate programmes in the UK and in some undergraduate university courses in the United States of America.

Finally, given the high numbers of students who indicated that they had experienced mental health difficulties during university in this study, I hope that this research will prompt university institution providers to integrate mental health support into compulsory university curricula. This is particularly important given that a large number of young people who experience mental health difficulties will never access support from mental health and wellbeing services (Karbeyaz, Toygar & Çelikel, 2016; Portzky, Audenaert & van Heering, 2009; Li, Phillips, Zhang, Xu & Yang, 2008). The integration of support into university curricula would make help more accessible to students and may create opportunities for students to talk openly about the challenging experiences that they may face.

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Acknowledgements

"Do not be anxious about anything, but in everything, by prayer and petition, with thanksgiving, present your requests to God. And the peace of God, which transcends all understanding, will guard your hearts and your minds in Christ Jesus." (Philippians 4.6-7).

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Part 1: Literature Review

What are the Risk Factors for Suicidal Behaviours Amongst Young People Aged 29 years and Under?

Abstract

Suicide is an on-going issue amongst young people globally (World Health Organisation, 2019). This conceptual introduction explores the evidence for the recent 'ideation to action' models of suicide, and the theories that have led to their development, as explanations for suicidal behaviour amongst young populations. Partial support is identified for each of the three ideation to action models. The Interpersonal-Psychological Theory (Joiner, 2005) is found to be well-supported by the literature, although the constructs of the IPT do not always relate to youth suicide in the way that the model predicts. Perceived burdensomeness is noted to be particularly relevant to youth suicidal ideation over thwarted belongingness. Preliminary support is also identified for constructs of defeat, entrapment (The Integrated Motivational-Volitional model: O'Connor, 2011) hopelessness and psychache (The Three Step Theory: Klonsky & May, 2015) but evidence is scarce and limited by cross-sectional designs and measurement error. The role of acquired capability in the escalation of suicidal ideation to attempts is found to be well-supported in the literature concerning young people. Given that partial evidence is identified for each model, the usefulness of identifying which theory best predicts youth suicide is proposed. The need for further research is highlighted.

1. Introduction

1.1 Defining Suicidal Behaviours

The term ‘suicidal behaviour’ is often used to describe several different behaviours including suicide, suicide attempts and suicidal ideation. To enhance communication and progress understanding amongst researchers and clinicians working in this field, the Centers for Disease Control and Prevention (CDC; Crosby, Ortega & Melanson, 2011) developed standardised definitions to describe the different acts often discussed under the umbrella term ‘suicidal behaviour’. These include: i) suicidal ideation: ‘thinking about, considering, or planning for suicide’, ii) suicide attempts: ‘a non-fatal, self-directed, potentially injurious behaviour with any intent to die as a result of the behaviour’ and, iii) suicide: ‘death caused by injuring oneself, with the intent to die’.

1.2 Epidemiology

Suicide is widely discussed as a preventable public health issue (World Health Organisation, 2019; CDC, 2019) but it was the second leading cause of death amongst 15-29 year olds globally in 2016 (World Health Organisation; WHO, 2019) and it is currently the third leading cause of death amongst 15-19 year olds (WHO, 2019). In 2016, 222,093 young people aged 10-29 years died by suicide globally (WHO, n.d.) and for each young person who dies by suicide, many more attempt to take their lives (WHO, 2019) and even more struggle with experiences of suicidal thinking (Nock et al., 2013). Thus, suicide remains a serious problem amongst young people.

Older adolescents are at an increased risk of suicide compared to younger adolescents and children (Cheng et al., 2014; Sinyor, Schaffer & Cheung, 2014). Indeed, it is uncommon for children under 10 years to consider suicide or for a child to die by suicide before the age of 12 (Nock et al., 2013). Several factors may explain this increased risk during adolescence including this period being the typical age of onset for numerous mental health difficulties (Nock et al., 2013; Kessler et al., 2007) and young people experiencing increased social and interpersonal challenges at this time (Heilbron & Prinstein, 2010; Roberts, Walton & Viechtbauer, 2006).

Young males are also at an increased risk of suicide compared to young females, although suicidal thoughts and attempts are more common amongst young females than young males (Office for National Statistics [ONS], 2019; Kokkevi, Rotsika, Arapaki & Richardson, 2012). This pattern has been observed across numerous countries including Israel (Zalsman et al., 2016), Turkey (Karbeyaz, Toygar & Çelikel, 2016), Portugal (Mendes et al., 2015), Finland (Lahti, Harju, Hakko, Riala & Räsänen, 2014), Canada (Sinyor et al., 2014), the USA (Singh & Lathrop, 2014) and Japan (Mitsui et al., 2013). Whilst the reasons for this trend remain unclear, researchers have suggested that this pattern may be explained by the different methods of suicide that young males and females utilise; males tend to use more lethal methods and complete suicide on their first attempt compared to females who utilise less lethal methods and make several attempts (Beautris, 2003). In line with this explanation, in countries where the most available methods are also highly lethal (and due to availability, males and females tend to utilise the same methods), young females are at a greater risk of suicide than males, in line with the greater number of females who makes suicide attempts (Li, Phillips, Zhang, Xu & Yang, 2008).

Indigenous youths are also more at risk of suicide compared to the youths of cultural majorities (for a review, see Harder, Rash, Holyk, Jovel & Harder, 2012). This elevated risk has been observed over several decades and continues to be present today, with rates of suicide amongst American Indians and Alaskan Natives in the United States over 3.5 times higher than other youths within the same population (CDC, 2018) and with extremes of 20 fold risk being observed in indigenous youth in Quebec more historically (Kirmayer, 1994). Whilst the reasons for this elevated risk are under-researched, Chandler and LaLonde (1998) explored youth suicide amongst aboriginal populations and found that difficulties forming a sense of identity and maintaining cultural values and upbringing were associated with greater rates of suicide. Harder et al. (2012) discussed how the forced acculturation and oppression that occurs due to colonisation may affect individuals' sense of identity, purpose and self-esteem and Berry (1997) discussed how forced acculturation is related to poverty and experiences of rejection, discrimination and racism.

In an effort to develop prevention strategies and effective interventions, research has sought to understand the psychosocial factors that may increase the risk of suicide and several theories have been developed. Whilst many of these theories have been based on risk amongst individuals across the lifespan, it is unclear how applicable these models are to young people specifically. This conceptual introduction will review the most recent and progressive 'ideation to action' models of suicide and the theories that led to their development. It will consider the empirical evidence for the application of these models to understanding suicide amongst young people aged 29 years and under, in line with research indicating that suicide is a leading cause of death amongst this age group (World Health Organisation; WHO, 2019).

2. Founding Theories of the Ideation to Action Models

2.1 Depression

Mental health difficulties have been extensively researched and well-supported as a risk factor for suicidal behaviour (Bolton & Robinson, 2010; Nock et al., 2008) and studies have identified mood disorders as particularly relevant to suicide (De Beurs, Ten Have, Cuijpers & De Graaf, 2019; Li et al., 2008). Interest in depression as a risk factor for suicide is long-standing (Birtchnell, 1970; Gispert, Wheeler, Marsh & Davis, 1985), with suicide historically being viewed as a symptom of depression, a stance still reflected in current diagnostic manuals today (WHO, 2018; American Psychiatric Association, 2013). Given the view that suicide results from depression, it follows that treating the depression would also reduce the desire for suicide (Jobes & Drozd, 2004).

Empirical evidence has supported the association between depression and suicidal behaviours amongst young people (Cukrowicz et al., 2011; Garlow et al., 2008). A prospective study exploring risk factors for suicidal behaviour amongst young university students (Nam, Hilimire, Jahn, Lehmann & Devylder, 2018) found that, of several variables explored, only depression and worst-point suicidal ideation predicted suicidal ideation intensity three months later. Furthermore, Singh and Lathrop (2008) retrospectively investigated rates of mental health in young people who died by suicide and found that 46% had experienced mental health difficulties, 50% of whom had depression. Thus, prospective and retrospective research has supported the role of depression in suicide. However, depression is limited as a predictor of suicidal behaviour due to its inability to differentiate high-risk young people who will and will not die by suicide. Whilst studies have found elevated rates of depression amongst suicidal individuals compared to community controls (Brent, Baugher, Bridge, Chen, & Chiappetta, 1999; Shaffer et al., 1996; Brent et al., 1993),

research comparing hospitalised suicidal young people who did not die to young people who did die by suicide has found no difference in the prevalence of depression across these groups (Portzky, Audenaert & Van Heeringen, 2009). The issue in distinguishing between high-risk individuals who may or may die by suicide is further stressed by Kisch, Leino and Silverman (2005) who investigated depression in 15,977 university students. They found that whilst 94.9% of students who had considered attempting suicide said they had felt very depressed, only 33.4% of all students who had felt very depressed had also seriously considered attempting suicide. Thus, this study highlights one of the main limitations of depression as a predictor of suicide; many depressed youths do not consider suicide and thus depression is not a necessary cause or a sufficient predictor of suicidal behaviours in youths. Research has thus continued to explore other factors which may better predict suicide.

2.2 Hopelessness

Hopelessness, a key feature of depression, has also been explored as a risk factor for suicide. Beck (1963) defined hopelessness as a cognitive state that occurs when individuals: i) anticipate negative outcomes concerning problems, and ii) believe that problems are irremediable. Beck observed that hopelessness was a common symptom amongst depressed individuals and, thus, he began exploring the unique contribution of hopelessness in suicide, separate to depression. He suggested that, because hopeless individuals see their problems as unsolvable, they are motivated towards suicide as the only solution to their problems (Beck, 1967).

Building on Beck's work into hopelessness, Abramson, Metalsky and Alloy (1989) proposed the Hopelessness Theory of Depression (see figure 1 for a visual representation). The theory suggests that the presence of hopelessness in an

Figure 1

The Hopelessness Theory of Depression (Abramson, Metalsky & Alloy, 1989)

individual guarantees a proposed subtype of depression, called 'hopelessness depression', of which suicide is a key symptom. The theory proposes a sequence of events that might lead to hopelessness, beginning with a negative life event. Subsequently, several factors influence whether or not a person becomes hopeless, including the inferences they make about: the *cause* of the negative event; the *consequences* associated with the event and their beliefs about themself, given that the event occurred. Individuals are hypothesised to be more likely to experience hopelessness depression if they believe that the cause and the consequences of the event will persist and affect several areas of life. Individuals are also more likely to become hopeless if their perceptions of themselves, given that the event

occurred, are believed to be unsolvable and likely to prevent fulfilment in several areas of their life. Abramson et al. suggested that each of these factors may vary in their importance in predicting hopelessness, depending on the event that has occurred. For instance, the *consequences* of bereavement may be more important in predicting hopelessness than the cause, but, regarding a divorce, the perceived cause, consequences, and conclusions about oneself may all be important in predicting hopelessness. In accordance with Beck's (1963) research, the model suggests that individuals with more negative inferential styles are at a greater risk of suicide, through hopelessness (Abramson et al., 2000).

The empirical evidence for the role of hopelessness in suicide amongst young people is variable. In a large-scale, cross-sectional survey exploring hopelessness and suicidal ideation amongst 5557 young Chinese students, hopelessness was found to predict suicidal ideation (Kwok & Shek, 2010). Similarly, Li, Li, Wang and Bao (2016) explored hopelessness in a survey of 1529 young people and found that hopelessness was associated with suicidal ideation and attempts. However, most of the evidence for the role of hopelessness in suicide comes from cross-sectional studies and thus it cannot be used to clarify whether hopelessness causes, or is triggered by, suicidal ideation as it cannot account for rates of hopelessness prior to suicidal ideation. A more recent and rare six-week prospective study (Wolfe et al., 2019) exploring hopelessness in 158 depressed young people found that baseline levels of hopelessness predicted suicidal ideation six weeks later in females but not in males. Thus, this study supports hopelessness as a predictor of suicidal behaviour amongst young people but indicates gender differences within this relationship. However, it is worth noting that the number of males included in this study was limited (n=64) and thus the sample size may have hindered the detection of any small effects within this sub-sample.

Research has also strongly supported the proposed relationship between negative inferential style and depression amongst young people (Dunbar et al., 2013; Nusslock et al., 2011; Abela, McGirr & Skitch, 2007). Haeffel et al. (2005) explored negative cognitive styles amongst 853 young students and found that those in remission from depression had more negative cognitive styles than those who had never experienced depression, thus not only supporting the role of cognitive styles in depression but also indicating that negative inferential styles represent a cognitive vulnerability to depression, rather than merely being a symptom. Longitudinal studies have also supported the proposed direction of this association. In a three-year study, Nusslock et al. (2011) explored cognitive styles and depression amongst 40 university students and found that cognitive style at baseline predicted first-ever depressive episode at follow-up, providing further support for negative inferential styles as a basis for depression. However, these studies explored the relationship between inferential style and existing types of depression, rather than Abramson et al.'s proposed 'hopelessness depression'. Thus, whilst these studies provide evidence for the role of cognitive styles in depression, they cannot support the association between inferential style and hopelessness depression, nor provide evidence for the existence of hopelessness depression.

Not many studies have explored the existence of hopelessness depression amongst young people. Whisman and Pinto (1997) investigated this concept amongst 160 depressed adolescents and found that hopelessness was significantly associated with 83% (5/6) of the hypothesised symptoms of hopelessness depression (motivational deficit, sad affect, suicidal ideation, lack of energy and low self-esteem) and 40% (2/5) of the symptoms of depression that were not hypothesised to occur in hopelessness depression (anhedonia, guilt, irritability, appetite/weight disturbance and somatic disturbance). Thus, this study provided partial support for the existence of hopelessness depression. Abela, Gagnon and

Auerbach (2007) also explored the existence of hopelessness depression amongst 39 young people and found that a composite score for the symptoms of hopelessness depression was associated with hopelessness, and significantly moreso than a composite score for non-hopelessness depression symptoms. Thus, this study provided further preliminary support for the existence of a hopelessness depression subtype amongst young people. However, further research is needed to corroborate these findings.

Thus, generally, the Hopelessness Theory of Depression has attained good empirical support but the inferences that can be made are limited by relatively few studies, small sample sizes and cross-sectional designs.

2.3 The Cry of Pain (CoP) Model

The cry of pain (CoP) model of suicidal behaviour (Williams, 1997) draws on research into the animal kingdom (Gilbert, Price & Allan, 1995) to explain the biopsychosocial mechanisms underlying depression, hopelessness, and suicide. The model suggests that individuals will feel depressed and contemplate suicide if they experience entrapment. Entrapment occurs when an individual is socially defeated or humiliated and wishes to escape but cannot. The entrapped individual desires suicide as a means of escape.

The CoP model suggests that changes in memory and problem-solving ability maintain feelings of entrapment. It suggests that when individuals experience entrapment, the accompanying helplessness cultivates symptoms of depression which, in turn, affect memory. Williams based this postulation on research showing that, compared to the general population, depressed individuals struggle to recall specific memories (e.g. I felt sad when I argued with X about….) and tend to recall over-general memories (e.g. I feel sad after arguments). This is problematic as

people make predictions about the future based on memories and, similarly, self-esteem is based on memories of past successes or failures. If a trigger activates a generalised network of negative memories, rather than a specific negative memory, individuals' conclusions about themselves and the future will likely be negatively biased. If a trigger activates a generalised network of positive memories (e.g. I felt happy that day), rather than a specific positive memory (e.g. I felt happy when I socialised with friends and we went ice-skating), the over-general memory contains no clue about what made the person happy and thus what they should do about current unhappiness. Thus, the model suggests that the depression that accompanies entrapment not only affects memory but also problem-solving abilities, thus making it difficult to conceive an alternative solution to suicide.

2.3.1 Measuring Defeat and Entrapment

Gilbert and Allan (1998) developed the defeat and entrapment scales in order to measure these constructs. The defeat scale was designed to capture perceptions of having struggled and lost, and the entrapment scale was designed to measure internal entrapment (a desire to escape, due to inner thoughts and feelings) and external entrapment (a desire to escape, due to events in the outside world). Factor analyses indicated that the entrapment scale developed was unidimensional and both scales demonstrated good-to-excellent internal consistency (Gilbert & Allan, 1998). These scales have since been widely adopted to measure experiences of defeat and entrapment.

As several studies have reported high correlations between defeat and entrapment scores within general- and clinical adult populations (Tarsafi, Kalantarkousheh & Lester, 2015; Rasmussen et al., 2010; Gilbert & Allan, 1998), some researchers have questioned whether these concepts represent distinct constructs or are better

conceptualised as one amalgamated construct (Sturman, 2011; Taylor, Wood, Gooding, Johnson & Tarrier, 2009). Taylor et al. (2009) conducted an exploratory factor analysis and found that defeat and entrapment items loaded best onto one single factor. Similarly, Sturman (2011) conducted an exploratory factor analysis on several concepts related to animal subordination behaviours, including defeat, external and internal entrapment, submissive behaviour and social comparison and found that all of these constructs loaded best onto a single factor. These studies therefore support the notion that defeat and entrapment are best conceptualised as one construct. However, Forkmann, Teismann, Stenzel, Glaesmer and de Beurs (2018) recently highlighted that the traditional factor-analytic methods used in these studies struggle to reliably estimate the accurate number of factors when constructs are highly correlated, as with defeat and entrapment. As such, they investigated these concepts using an exploratory graph analysis, a method capable of working with highly correlated constructs, and found that defeat and entrapment were best conceptualised as distinct constructs. Thus, as the CoP model suggests, defeat and entrapment may represent separate, although highly correlated constructs. Nonetheless, it is difficult to make inferences with confidence, given that only one study has utilised network analyses to explore these constructs. Therefore, it remains unclear how concepts of defeat and entrapment relate to each other.

The defeat and entrapment scales are further limited by their inability to distinguish between different sources of defeat and entrapment. Defeat has been discussed as any situation in which an organism encounters a struggle and loses. Within the animal literature, this typically refers to social struggles and competitions. However, since these findings were extrapolated to humans, it has been acknowledged that defeat may extend to self-perceived failures to meet one's personal goals or standards (Gilbert & Allan, 1998) but the defeat scale is incapable of differentiating these different types of defeat. Moreover, whilst Gilbert and Allan suggest that it

does matter whether entrapment is internally or externally driven, theoretically and therapeutically, the scale that they developed was unidimensional; research has not determined whether this indicates that the distinct nature of these constructs was not captured by the measure developed or whether internal and external entrapment represent one single phenomenon. Thus, there is ambiguity about what constructs the defeat and entrapment scales measure.

2.3.2 Evaluating the Cry of Pain Model of Suicide

The relationships between defeat, entrapment, depression and suicidality have been well-supported within adult populations (Siddaway, Taylor, Wood & Schulz, 2015; Taylor, Gooding, Wood & Tarrier, 2011) but the empirical evidence for these constructs as risk factors for suicide amongst young people is limited (Siddaway et al., 2015). Nonetheless, the limited research strongly supports defeat and entrapment as risk factors for youth suicidal behaviours. In a study of 11,393 adolescent Korean students (Park et al., 2010), entrapment explained the greatest variance in suicidal ideation compared to depression, low resilience, trait anger and psychosomatic symptoms. Furthermore, Russell, Rasmussen and Hunter (2018) also explored defeat, entrapment and suicidal ideation and found that defeat fully mediated the relationship between insomnia and suicidal ideation amongst 1045 adolescent students. In this study, defeat and entrapment also partially mediated the relationship between nightmares and suicidal ideation, thus supporting the assumption of the CoP model that defeat and entrapment are related to suicidal behaviour. A qualitative study of 80 homeless youths (Kidd, 2004) also identified a sense of being trapped as central to experiences of suicidal ideation and attempts, thus strengthening the evidence for an association between these constructs. Whilst the limited existing research has supported the role of defeat and entrapment in

youth suicide, all of these studies have utilised cross-sectional designs; there are no longitudinal studies. As such, it is not possible to infer causation in the relationship between defeat, entrapment, and suicidal behaviours.

The association between problem-solving deficits and depression has also been supported in the literature. Speckens and Hawton (2005) conducted a systematic review of research exploring problem-solving amongst suicidal adolescents and concluded that depression often moderates the association between problem-solving deficits and suicidal behaviours. However, Speckens and Hawton also noted that most studies utilised cross-sectional designs and thus it is difficult to infer whether problem-solving deficits result in depression or whether depression underlies problem-solving difficulties.

Overall, whilst the preliminary evidence for the CoP model as an explanation for suicide amongst young people is good, research is sparse. Moreover, there are some important limitations in the ability of the only existing measures of defeat and entrapment to measure these constructs, causing ambiguity at a conceptual level about what these constructs represent and what is being measured. Consequently, there are bound to be disparities in the constructs being explored across the literature.

2.4 The Psychache Theory of Suicide

Shneidman (1998) proposed that psychological pain, termed ‘psychache’, is at the root of an individual’s decision to take their life and mediates the relationship between suicide and other risk factors such as depression, hopeless and entrapment. Shneidman’s theory of psychache posits that psychological pain relates to any negative emotion experienced, such as fear, guilt, anger, or sadness, and that it is driven by unmet psychological needs. The model suggests that some

human needs are vital, such as the need to be loved and affiliated with others or the need to avoid humiliation. If one or more vital needs are thwarted, an individual will experience psychache and if their pain reaches a threshold (the limit of which varies across individuals) it will be experienced as intolerable; the individual will approach suicide in order to end the pain.

2.4.1 Measuring Psychache

To measure psychache, Shneidman (1999) proposed the Psychological Pain Assessment Scale (PPAS), a measure with four parts. First, individuals are given a definition of psychache and asked to rate their psychological pain on a scale of 1 (low) – 9 (high). Second, participants are shown five images and asked to rate the pain of the characters in the pictures. Third, participants rate the worst psychological pain they have ever experienced on a scale of 1-9 and are asked what feelings were present during that time. They are also asked about past suicide attempts. Finally. participants give more information about the worst psychological pain they ever experienced and write freely about how it felt, what the circumstances were and how it worked out. Shneidman suggested that this fourth task is the most important as it allows individuals to tell their story which Shneidman believed would be saturated with psychodynamically important information. The task is proposed to offer clinicians insight into clients' personal thresholds, their strengths and the needs that may maintain their risk. As the PPAS is a four-part measure, the scale is time-consuming to administer and it requires an experienced clinician to interpret the narrative account. Furthermore, the test relies on the analysis of one single account for both manifest and latent insights into pain, the interpretation of which will inevitably be biased by the clinician's perspectives and experiences. Therefore,

there are issues of falsifiability and validity with the measure and thus the scale has not been widely adopted within research.

Given the limitations of the Psychological Pain Assessment Scale, Holden, Mehta, Cunningham, and McLeod (2001) developed the Psychache scale (PAS) to measure psychological pain. The scale is a brief measure that requires individuals to respond to 13 statements about psychache, on a 5-point likert scale. In a study of 294 undergraduate university students, this scale demonstrated excellent internal consistency (α = .92) and good concurrent validity (Holden et al., 2001). The scale has since been widely adopted as measure of psychache and was used in all the studies discussed below.

It is worth noting that some of the items in the PAS resemble those used to measure depression (e.g. “I can’t take my pain anymore”) and, indeed, high correlations have been observed between psychache and depression (*r* = .87 [Montemarano et al., 2018]; *r* = .84 [Troister & Holden, 2012]). However, despite the high correlations observed, exploratory and confirmatory factor analyses have indicated that these are overlapping but distinct constructs (DeLisle & Holden, 2009).

2.4.2 Evaluating the Psychache Theory of Suicide

The role of psychache in suicidal behaviours amongst youths has been well-supported by cross-sectional (Troister, D’Agata & Holden, 2015; Pereira, Kroner, Holden & Flamenbaum, 2010) and longitudinal research (Li et al., 2019; Montemarano, Troister, Lambert & Holden, 2018; Troister & Holden, 2012). In two prospective studies conducted over a 2- (Troister & Holden, 2012) and 4-year (Montemarano et al., 2018) period, psychache, depression and hopelessness were significantly correlated with suicidal ideation at baseline and follow-up but only

changes in psychache scores uniquely predicted change in suicidal ideation over time, thus supporting psychache as a predictor of suicidal behaviour. The mediating role of psychache has also been supported in studies exploring hopelessness, depression, and abuse as predictors of suicide amongst adolescents (Li et al., 2019; Montemarano et al., 2018; Pereira et al., 2010).

Whilst evidence largely supports the role of psychache in youth suicide, research has indicated that cultural differences may exist in the expression and manifestation of psychological pain. Most of the evidence supporting psychache as a predictor of suicide comes from Western studies but Li, Fu, Zou and Cui (2017) measured psychache, depression and pain avoidance amongst Chinese university students. They found that whilst depression and pain avoidance significantly correlated with suicidal ideation, psychache did not. Given that this study used similar methodologies to studies conducted in Western societies (Troister, D'Agata & Holden, 2015), the authors proposed that one explanation for the discrepancy in findings is that Chinese individuals living in an authoritarian culture may need to manage their emotions to achieve (at least surface) harmony- a concept that is important in China (Zhong, 2011), and thus there may be a tendency to repress painful emotions, rather than expressing them. Therefore, the lack of a significant association between psychache and suicidal ideation in this study may reflect a reluctance to express psychological pain, rather than the absence of it. However, this explanation is speculative and further research is needed to understand the cultural differences that may exist in the relationship between psychache and suicidal behaviour.

Research investigating the role of frustrated psychological needs in the onset of psychache amongst young people is also limited. One study (Lear, Stacy & pepper, 2018) exploring the association between belonging (a proposed vital need) and psychological pain amongst university students found that thwarted belonging was

significantly associated with psychache, thus providing preliminary support for an association between these variables. However, this finding has not been substantiated by further research and the study is cross-sectional, thus limiting the conclusions that can be made.

Perhaps one of the biggest limitations of the psychache model is its inability to differentiate between individuals who are at risk of suicide, suicide attempts and suicidal ideation. Whilst the model describes several conditions in which individuals may desire suicide, it cannot explain how suicidal ideation may escalate to attempts or death by suicide. Thus, the predictive power of the model is limited beyond this stage of suicidal behaviour.

3. Ideation to Action Models of Suicide

3.1 The Interpersonal-Psychological Theory (IPT) of Suicidal Behaviour

In response to the need for a model capable of differentiating individuals who may think about, and those who may attempt suicide, Joiner (2005; Van Orden, Witte, Gordon, Bender, & Joiner, 2008) proposed the Interpersonal-Psychological Theory (IPT) of suicidal behaviour. This model suggests that Individuals will experience suicidal ideation if two particular needs are thwarted - the need to belong or be socially connected with others (thwarted belongingness) and the need to contribute meaningfully to the welfare of close others (perceived burdensomeness). The model does not suggest that the thwarting of these needs is the only pathway to suicidal ideation but that the combination of these thwarted needs results in a particularly destructive form of suicidal desire. However, the IPT suggests that a desire for suicide does not mean that one will attempt suicide; an individual will only make an

attempt if they have had painful or provocative life experiences which have desensitised them to pain or death, thus allowing them to move towards it, as is necessary when attempting suicide. Joiner suggested that the most direct way individuals acquire suicide capability is through past suicide attempts. Less direct experiences that may also habituate individuals to fear and pain include exposure to violence, non-suicidal self-injury, getting piercings or playing contact sports (Van Orden et al., 2008).

3.1.1 Measuring Burdensomeness, Thwarted Belongingness, and Acquired Capability

To measure the proposed constructs of perceived burdensomeness (PB) and thwarted belongingness (TB), Van Orden, Cukrowicz, Witte and Joiner (2012) developed the Interpersonal Needs Questionnaire (INQ). The scale was developed as a 25-item questionnaire, with two subscales measuring TB and PB (Anestis & Joiner, 2011; Van Orden, 2009). Individuals were given several statements and responses were recorded on a 7-point likert scale. However, subsequently, several different versions of the measure have been adapted for use amongst different populations, including an 18-item (Miller, Esposito-Smythers & Leichtweis, 2016), 15-item (Van Orden, Cukrowicz, Witte, & Joiner, 2012), 12-item (Van Orden et al., 2008), 10-item (Bryan, 2011) and a 2-item version (Czyz, Horwitz, Arango & King, 2019). Whilst the development of the INQ-25 and the INQ-15 are clearly detailed in the literature, the development and psychometric properties of the other adaptations of the INQ are not. Due to this observation, Hill et al. (2015) evaluated the psychometric properties of each version of the INQ and found that whilst each of them showed acceptable-to-good internal consistency, only the INQ-10 and the INQ-15 consistently demonstrated acceptable model fit across different populations

(including undergraduate university students). Thus, they proposed that these versions should be used going forwards.

To measure the concept of acquired capability (AC), the Acquired Capability for Suicide Scale (ACSS) was developed (see Bender, Gordon, Bresin & Joiner, 2011). The original scale was a 20-item measure designed to assess fearlessness about death and pain insensitivity. However, due to administration time, and for use in different populations, 5-item (Van Orden et al., 2008), 6-item (Bender et al., 2011) and 8-item formats (Smith et al., 2013) were developed. Most recently, to reflect refinements in the definition of acquired capability, and based on factor analyses, Ribeiro et al. (2014) developed a 7-item adaptation of the ACSS which focuses on fearlessness about death (ACSS-FAD) but not pain tolerance. The scale gives seven statements about fearlessness towards death (e.g. I am not at all afraid to die) and participants rate how much they agree with each statement, on a likert scale of 0 (not at all like me) to 4 (very much like me). This scale has demonstrated good internal consistency, as well as convergent and divergent validity, amongst adolescent and young adult populations (Horton et al., 2017; Ribeiro et al., 2014).

Due to the use of several different versions of both the ACSS and the INQ, and given that the psychometric properties of some of these adaptations have not been empirically supported, it is possible that discrepancies in findings regarding the tenets of the IPT may reflect measurement error rather than systematic variance across different populations. It is thus important to hold the use of measures in mind when considering the existing body of research.

3.1.2 Evaluating the Interpersonal-Psychological Theory of Suicidal Behaviour

The existing evidence for the IPT amongst young people is variable. Most cross-sectional studies have provided full or, more frequently, partial support for the role of perceived burdensomeness and thwarted belongingness in suicidal behaviour (Becker, Foster & Luebbe, 2020; Czyz, Horwitz, Arango & King, 2019; Horton et al., 2016; Opperman, Czyz, Gipson & King, 2015; Joiner et al., 2009). However, several of these studies used less empirically supported adaptations of the INQ (Becker et al., 2020; Czyz et al., 2019) and thus it is unsurprising that findings have varied. Whilst studies have typically identified perceived burdensomeness as particularly relevant to suicidal ideation amongst young people (Becker et al., 2020; Czyz et al., 2019; King et al., 2019; Horton et al., 2016; Opperman et al., 2015), there is less support for the role of thwarted belongingness in suicidal ideation (Becker et al., 2020; King et al., 2019; Horton et al., 2016; Opperman et al., 2015). Research exploring the interaction effect of TB and PB on suicidal ideation, the model's central tenet, has also achieved mixed findings. Whilst several studies have supported this interaction effect (Czyz et al., 2019; King et al., 2019; Horton et al., 2016; Opperman et al., 2015; Joiner et al., 2009), others have not (Becker et al., 2020; Barzilay et al., 2015; Bryan, Morrow, Anestis & Joiner, 2010). However, several of the studies that failed to find a significant interaction effect used less empirically supported adaptations of the INQ (Becker et al., 2020) or unvalidated measures of the IPT model's main constructs (Barzilay et al., 2015). Furthermore, some of these studies used outcome measures that amalgamated suicidal ideation and attempts (Becker et al., 2020; Bryan et al., 2010) despite that the IPT predicts that the interaction between TB and PB will only predict suicidal ideation, not attempts. Thus, several cross-sectional studies failing to find an interaction effect may have been limited by methodological decisions and measurement error.

A small number of longitudinal studies have also explored the relationship between the constructs of the IPT and suicidal ideation (King et al., 2018; Miller et al., 2016). Whilst these studies have demonstrated some support for the roles of PB and TB in youth suicidal behaviours, they have not demonstrated the predictive abilities of these constructs over time. Furthermore, the constructs of the IPT have not always interacted with suicidal ideation in the way that the model predicts. In a study of 143 adolescents admitted to a brief in-patient hospital programme, Miller et al. (2016) found that perceived burdensomeness, but not thwarted belonging, predicted suicidal ideation at baseline. The interaction between these constructs was not significant. Furthermore, neither PB, TB, nor the interaction between them predicted suicidal ideation 11 months later when controlling for other factors, although depression fully mediated a significant relationship between baseline thwarted belongingness and suicidal ideation at follow-up. King et al. (2018) also explored the constructs of the IPT over time amongst 54 adolescents in an intensive outpatient program. PB and TB at admission did not predict suicide risk at discharge, although change in PB and TB scores, and change in the interaction effect scores, were associated with change in suicidal ideation over time. The researchers suggested that the differences observed in cross-sectional and prospective findings do not invalidate the clinical usefulness of the IPT constructs but may provide evidence that the constructs are responsive to interventions. Indeed, levels of perceived burdensomeness and thwarted belonging reduced over time in these studies. Thus, in general, the existing evidence seems to suggest that PB and TB are related and important to suicidal ideation but that they do not always operate amongst young people in the ways that the IPT predicts.

The role of acquired capability (AC) in the escalation of suicidal ideation to attempts has received more attention in the literature (for a review see Stewart, Eaddy, Horton, Hughes & Kennard, 2017) and numerous cross-sectional studies

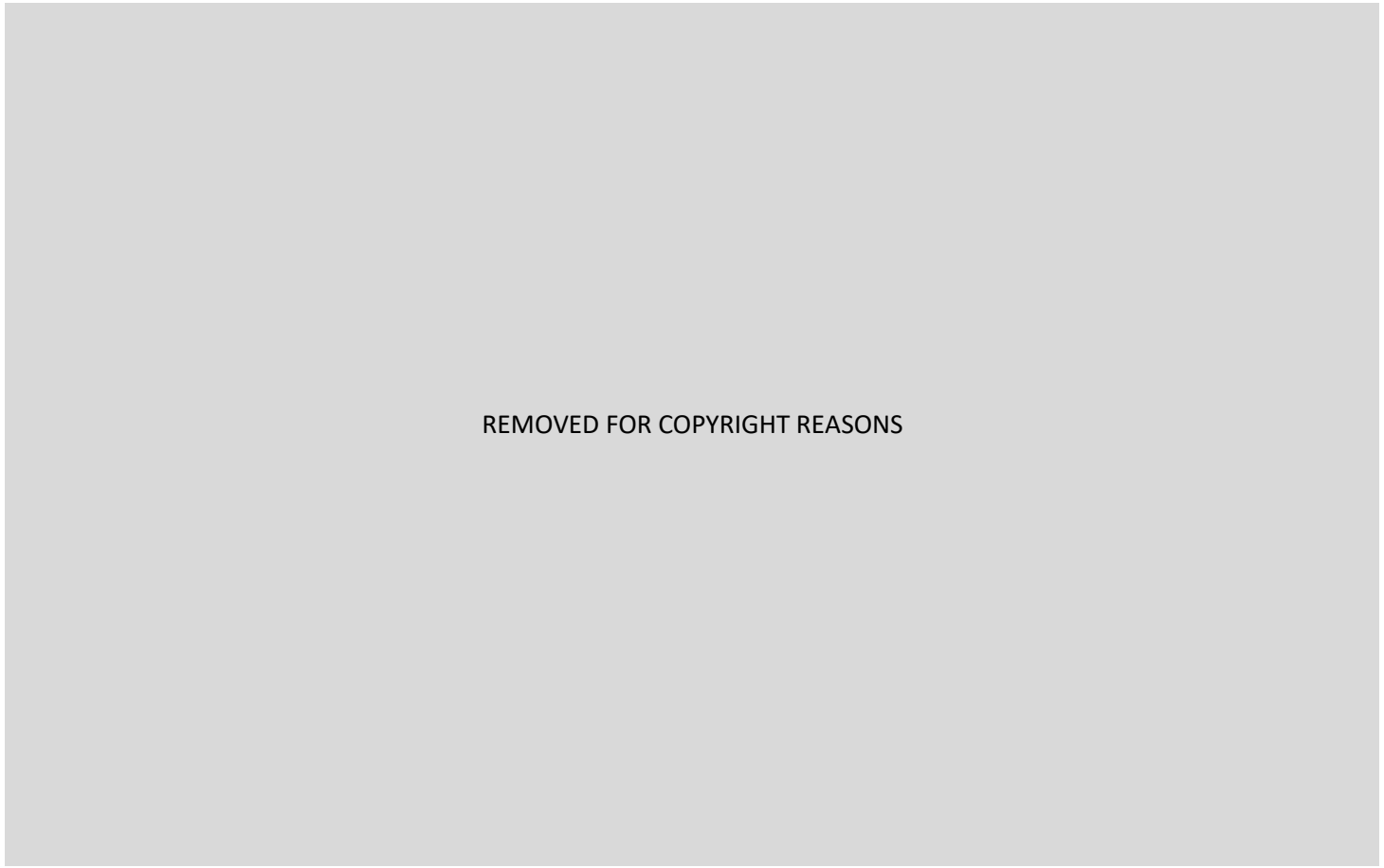
have provided support for the ability of AC to distinguish between suicide ideators and attempters (Brausch & Perkins, 2018; King et al., 2017; Horton et al., 2016; Cero & Sifers, 2013). In a study of 147 hospitalised adolescents, Horton et al. (2016) found that a 3-way interaction between thwarted belongingness, perceived burdensomeness and acquired capability predicted suicide attempt scores. Similarly, Bryan et al. (2010) found that army personnel (who are exposed to painful or provocative situations) had higher acquired suicide capability, thus supporting the proposed relationship between provocative experiences and habituation to pain and fear. Whilst cross-sectional studies have provided support for the proposed role of acquired capability in youth suicide, only one longitudinal study has explored this relationship amongst adolescents (Czyz, Berona & King, 2015). In this study of 376 adolescents who were hospitalised due to suicidal risk, a three-way interaction between PB, TB and AC at baseline did not predict suicide attempts 3- or 12 months later. Therefore, whilst preliminary, cross-sectional evidence has supported the role of acquired capability, more research is needed to understand how this construct relates to suicide amongst young people over time.

3.2 The Integrated Motivational-Volitional Model (IMV)

In line with the acknowledgment that perceived burdensomeness and thwarted belongingness are not the only pathways to suicidal desire (Van Orden et al., 2008), O'connor (2011) proposed the Integrated Motivational-Volitional (IMV) model of suicidal behaviour (see figure 2 for a visual representation). This model aimed to amalgamate several theories of suicide into one comprehensive framework capable of distinguishing between individuals who will think about, and those who will attempt, suicide. The model suggests that, in a phase named 'the motivational

Figure 2

The Integrated Motivational-Volitional Model (O'Connor, 2011)



phase', the concepts of defeat and humiliation discussed in the cry of pain model (Williams, 1997) may lead to a sense of entrapment which is a proximal cause of suicidal ideation. However, the IMV model expands on Williams' CoP model and suggests that the likelihood of an individual moving from defeat to entrapment and then to suicidal ideation is determined by moderators at each point. It suggests that a humiliated or defeated individual may experience entrapment if they also have social problem-solving deficits, memory biases or ruminative thinking styles. These moderators are termed 'threat to self moderators'. Similarly, whether or not an entrapped individual develops suicidal ideation depends on: whether or not they have reasons to live; if they can attain positive future thinking; if they have positive and adaptive goals; how resilient they are and if they have experienced thwarted belongingness or perceived burdensomeness. These moderators are called 'motivational moderators'.

The model also proposes a 'volitional phase', in which individuals move from thinking about suicide to making an attempt. Whether or not an individual who thinks about suicide will make an attempt also depends on moderating factors, termed 'volitional moderators'. In line with the assumptions of the Interpersonal-Psychological Theory of suicidal behaviour (Joiner, 2005), the IMV model suggests that acquired capability (habituation to pain and/or fear) is a volitional moderator. However, the IMV broadens the tenets of the IPT to suggest other moderators that will determine whether or not a person who thinks about suicide will make an attempt, including: if they have the means to attempt suicide (e.g. access to a gun or medication), if they have made plans, if they have been exposed to other people's suicide in the past, whether they are impulsive or not and whether they have a mental image of their death.

Finally, the model suggests that there are distal factors which make individuals more vulnerable to suicide. These distal factors occur within a 'pre-motivational

phase' and include: i) any diathesis or genetic vulnerability that may increase individuals' risk of suicide (e.g. reduced serotonin transmission or socially prescribed perfectionism); ii) environmental factors (e.g. socio-economic inequality or poverty) and iii) any life events that increase risk (e.g. early life adversity or stressful life events). The IMV proposes that these vulnerability factors increase suicide risk through their influence on the constructs within the motivational and volitional phases proposed.

3.2.1 Evaluating the Integrated Motivational-Volitional Model

Aside from the limited evidence that has hitherto been discussed regarding Williams' (1997) concepts of defeat and entrapment, little research has explored the validity of the additional tenets of the Integrated Motivational-Volitional model amongst young people. To date, only one study has explored several of the IMV's central tenets within the same population (Li et al., 2020). In this study of 1,239 Chinese adolescent students, a path analysis found that each stage of the model's proposed trajectory (from defeat to entrapment, entrapment to suicidal ideation and from suicidal ideation to suicide attempts) was significant, thus supporting the IMV model's proposed pathway to suicidal behaviour. Furthermore, pathways from defeat to suicidal ideation, from defeat to suicide attempts and from entrapment to suicide attempts were not significant, thus further supporting the validity of the model's specified sequence and order of how suicidal behaviours develop. Whilst this study provided preliminary support for the validity of the whole pathway proposed by the IMV model of suicide amongst young people, the lack of further research limits what can be inferred from this study.

Research exploring the proposed moderators in the IMV model, and their ability to distinguish between individuals in different phases of suicidal behaviour, is also very

sparse. Li et al. (2020) conducted a regression analysis and found that, as predicted, resilience, thwarted belongingness and perceived burdensomeness moderated the relationship between entrapment and suicidal ideation, where high PB and TB and low resilience were associated with suicide attempts. However, contrary to the IMV model, rumination did not moderate the relationship between defeat and entrapment. Thus, whilst the role of 'motivational' moderators was supported by this study, 'threat to self' moderators were not. Ren, You, Lin and Xu (2018) also found support for the role of motivational moderators. In a study of 1074 Chinese adolescent students, the role of 'reasons for living' in the development of suicidal ideation was explored. In line with the IMV model, reasons for living moderated the relationship between entrapment and suicidal ideation, where having a strong reason for living was protective against developing suicidal ideation. Further, Yang, Liu, Chen and Li (2019) found support that volitional moderators (e.g. access to lethal means) distinguished between suicide ideators and attempters amongst 1075 Chinese students. Thus, although only three studies have explored the IMV's proposed moderators, there is preliminary support for the motivational and volitional moderators proposed by the IMV model. With regards to the finding that rumination did not moderate the relationship between defeat and entrapment, in the absence of any other research exploring this aspect of the model, it is difficult to know whether this finding indicates that rumination as a moderator is not valid within youth populations or whether the null finding can be explained by some other variable, such as cultural differences.

The issue of limited research is highlighted further when considering that, as of yet, there are no studies that have sought to understand how the proposed distal vulnerability factors of suicide may interact with concepts of defeat, entrapment and the model's moderators to determine suicide risk amongst young people. Thus, our

understanding of the IVM model of suicide, and its applicability to young people, is highly constrained by a lack of research evidence.

The Three-Step Theory (3ST)

The most recently proposed ideation to action model is the Three-Step Theory of suicidal behaviour (Klonsky & May, 2015; see figure 3 for a visual representation) which suggests that individuals will consider suicide if they experience pain and if they feel hopeless about the possibility that the pain can improve. The model suggests that pain acts as a punisher for living, and thus reduces an individual's desire to live. According to this model, pain is usually psychological but can also be physical and can be triggered by different factors, including social isolation, PB, TB or defeat and entrapment. The combination of pain and hopelessness is postulated to result in suicidal ideation but the model suggests that if an individual is connected in life, their suicidal ideation will only be moderate or passive. Connectedness typically refers to a connection with people but can also refer to one's connection or investment in other aspects of life, such as a connection with one's work, hobbies or any factor that keeps individuals invested in life. Conversely, if an individual is in pain and hopeless and they do not experience connectedness, or if their pain is greater than their sense of connectedness, they will develop strong or active suicidal ideation.

Similarly to the IPT, the 3ST suggests that individuals who think about suicide will only make an attempt if they are capable of doing so and that individuals will have a greater capability to approach suicide if their life experiences have habituated them to pain and fear. Similarly to the Integrated motivational-volitional model, the 3ST also suggests that individuals are more likely to make a suicide attempt if they are practically able to do so (e.g. having access to lethal resources). However, the

Figure 3

The Three-Step Theory (Klonsky & May, 2015)

Three Step Theory goes further to suggest that practical capability not only includes access to lethal resources but also having knowledge about how to make a suicide attempt. Furthermore, the model suggests that individuals are also more likely to make a suicide attempt if they have a genetic disposition which allows them to withstand certain factors, such as pain or blood (called dispositional capacity).

3.3.1 Measuring Suicide Capability as Defined by the Three Step Theory

In order to measure the additional subtypes of suicide capability proposed by the 3ST, Klonsky and May (2015) developed the Suicide Capacity Scale (SCS-3). This 6-item scale was designed to assess three types of suicide capability: acquired (de-

sensitisation to fear of pain or death); practical (access to and knowledge of methods of suicide) and dispositional (inherent low fear of pain or death). Individuals respond to six statements on a 7-point likert scale. The SCS-3 has been found to differentiate suicide ideators and attempters and to have convergent validity (Klonsky & May, 2015). It has also been shown to have acceptable internal consistency amongst youth populations (Yang, Liu, Chen & Li, 2019).

3.3.2 Evaluating the Three Step Theory

Whilst research has explored the individual effects of pain and of hopelessness on suicidal behaviour amongst young people, as discussed above within models of hopelessness (Abramson, Metalsky & Alloy, 1989) and psychache (1998), only one study to date has tested the interaction of these variables on suicidal behaviours specifically within a youth population, likely because this model has only recently been developed. However, this is problematic as the central tenet of the 3ST proposes that the combination of pain and hopelessness is crucial in the prediction of suicidal ideation. Yang, Liu, Chen & Li (2019) explored this interaction amongst 1075 Chinese students and found that hopelessness, psychological pain and the interaction effect each contributed unique explanatory variance to suicidal ideation. Furthermore, in line with the predictions of the 3ST, connectedness to others protected against the escalation of suicidal ideation. Finally, contrary to the 3ST, dispositional capability (long-standing or inherent ability to withstand factors such as blood or pain) did not distinguish between individuals who thought about suicide and those who made an attempt. Thus, this study provided preliminary support for several of the tenets of the Three-step Theory of suicide amongst youth. However, more research is needed to understand the applicability of this model to young people.

4. Conclusions

The current conceptual review suggests that the 'ideation to action' models of suicide may offer an important step towards understanding the pathways that lead to suicide. As such, they may be crucial for the development of more effective suicide prevention strategies for young people. However, as of yet, the existing body of research exploring the validity of these models amongst young populations is very scarce, thus limiting our understanding of how the relevant constructs relate to youth suicide. This limited understanding is particularly true of the two most recent models- the Integrated Motivational-Volitional model and the Three Step Theory. Whilst the Interpersonal-Psychological Theory of suicidal behaviour has achieved more attention and support for the role of perceived burdensomeness, thwarted belongingness and acquired capability in the literature, it is evident that these constructs do not operate within young people in the ways that the IPT predicts. Thus, more research is needed to understand how these constructs relate to suicide amongst young people.

Whilst the Integrated Motivational-Volitional model has good preliminary support for the pathways between defeat, entrapment, suicidal ideation and suicide attempts, the moderators proposed to facilitate the transition from one stage to the next have received partial support. At present, it is difficult to infer meaning from these findings when studies are so few. There are also considerable limitations and conceptual ambiguities relating to the only measures of defeat and entrapment that exist - these should be addressed before research continues to explore the relationship between these constructs and other psychological phenomena.

The Three-Step-Theory has also received some preliminary support for its applicability amongst youth populations but this model is the most under-researched of the three, with just one study exploring the interaction effect of psychache and

hopelessness on youth suicidal ideation. Whilst the study provided good evidence for this model, it is again difficult to infer meaning from this finding in the absence of further research.

4.1 Considerations for Future Research

Future research should continue to build upon the small body of studies seeking to explore the validity and applicability of the ideation to action models of suicide amongst young populations. Given that partial support has been found for each model, it may be particularly helpful to understand which of these models is best able to explain and predict suicidal behaviours amongst young people, in order to guide suicide prevention efforts. Where possible, researchers should aim to utilise longitudinal, rather than cross-sectional designs, in order to begin to answer questions concerning causality and predictive ability of the constructs proposed in these models.

It is worth noting that the three existing ideation-to-action models discussed in this introduction were identified in Klonsky and May (2014; 2015), rather than through a systematic review of the literature, given that this is a conceptual introduction and not a systematic review. Klonsky and May acknowledge the IPT model as the first ideation-to-action model of suicide, and the IMV model as an additional model that has utilised the ideation-to-action framework, before outlining their most recent model (the 3ST). An iterative process was utilised to identify relevant research concerning these models and their founding theories and, as such, it is possible that additional models or research relevant to the discussion above may not have been included in this conceptual review. Future researchers may wish to take a systematic approach to reviewing the literature in order to rule out this possibility.

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Part 2: Empirical Paper

What are the Risk Factors for Suicidal Behaviours Amongst Young UK University Students Aged 29 years and Under?

Abstract

Aims: Rates of suicide are increasing amongst university students and young people in the UK. Recent 'ideation to action' models of suicide may offer an important step in understanding pathways to suicide. Problematically, very little research has explored the applicability of the ideation to action models within these populations. Thus, this study aimed to investigate the predictive ability of the Interpersonal-Psychological Theory (Joiner, 2005) and the Three Step Theory (Klonsky & May, 2015) in explaining suicidal ideation amongst young university students, 29 years and under, in the UK.

Method: An online survey was used to explore risk factors for student (n = 355) suicidal behaviours. As part of survey development, semi-structured interviews were conducted with five university students, to identify any risk factors not captured by the ideation to action models.

Results: Logistic regression analyses showed that perceived burdensomeness, psychache and depression predicted suicidal ideation amongst students. Psychache also fully mediated the relationship between perfectionism and suicidal ideation. Thwarted belongingness, hopelessness and the interaction effects of the model constructs did not contribute unique explanatory variance.

Conclusions: Perceived burdensomeness, psychache and depression may be particularly important in understanding suicidal behaviours amongst young university. Suicide prevention strategies should target these risk factors.

1. Introduction

Suicide represents a serious health concern amongst youths in the UK, with 1,274 young people aged between 10 and 29 years having died by suicide in 2018 alone (Office for National Statistics, 2019a). Despite numerous prevention efforts (Papyrus, 2020; Department of Health, 2016; Department of Health and Social Care, 2012), rates of suicide amongst young people in the UK appear to be rising. From 2017 to 2018, suicide rates amongst 10-24 year old males rose by 25%, from 431 to 542 deaths (7.2 to 9.0 deaths per 100,000) and suicide amongst females of the same age group have also risen significantly by 83% between 2012 to 2018, from 106 to 188 deaths (1.8 to 3.3 deaths per 100,000; Office for National Statistics, 2019b). These statistics are more concerning when considering that, for every person who dies by suicide, more than 20 people will attempt suicide (World Health Organisation, 2020) and even more people will struggle with suicidal ideation (Nock et al., 2013). Given the rising rates of suicidal behaviours amongst young people in the UK, it is important to understand the factors that contribute to suicidal behaviour. This could inform us about how best to prevent further increases, to reduce current rates of suicide and to better support young people who experience suicidal thoughts.

The Three Step Theory (3ST: Klonsky & May, 2015) and the Interpersonal-Psychological Theory (IPT: Joiner, 2005; Van Orden, Witte, Gordon, Bender, & Joiner, 2008) of suicide are two contemporary 'ideation to action' models of suicidal behaviour. These models have received considerable attention in recent years and may offer insight into the reasons that some young people end their lives. However to date, only one study has tested the validity of these models within a UK population. This is problematic as research indicates cultural differences in the risk factors for suicide (Goldston et al., 2008; Eshun, 2003). Thus, findings from the large majority of studies exploring the ideation to action models cannot be

generalised to individuals in the UK. The only study to test either of these models within a UK population (Dhingra, Klonsky & Tapola, 2019) explored suicidal behaviour amongst 665 UK university students aged 17-67 years. Dhingra et al. found that whilst pain, hopelessness and the interaction effect (tenets of the 3ST) accounted for 56% of the variance in suicidal ideation, perceived burdensomeness, thwarted belongingness and the interaction effect (tenets of the IPT) accounted for 49% of the variance in suicidal ideation. Therefore, the 3ST explained 7% more of the variance in suicidal ideation than the IPT. This study indicated that whilst both models may be valid explanations for suicidal behaviours amongst UK populations, the predictive ability of the Three Step Theory may be slightly superior. However, this study included students of ages across the lifespan and thus the findings are not reflective of the reasons for suicidal behaviours specifically in young people in the UK. Furthermore, the model with the greatest explanatory ability only accounted for 56% of the variance in suicidal ideation and thus 44% of the variance was unexplained, suggesting that other factors may play a role in suicidal behaviour.

Research suggests that factors relating to student life may put young people at an increased risk of suicidal behaviour, including academic performance (Orozco et al., 2018) and bullying (Holt et al., 2015; Kim & Leventhal, 2008). It is perhaps unsurprising that student-related stressors are relevant to youth suicide, given that a large proportion of the young population (aged 29 or younger) are also students. Education is compulsory up until age 16 in the UK and, once 16, individuals must remain in education or training programs until 18 years. Further, statistics for 2017-2018 showed that approximately 50% of young people continued into higher education at some point between the age of 17 and 30 years, with the majority doing so at the age of 18 or 19 years (Department for Education, 2019).

Concerns about suicide specifically amongst university students recently emerged in the UK following numerous student suicides in several UK universities (Hurst,

2018; Adams, 2018; Agerholm, 2016; Steafel, 2017). Disconcertingly, many of these deaths occurred within a 12-month period of one another, leading to extensive media coverage. To explore the validity of these concerns, and to understand student suicide better, the government carried out research investigating suicide amongst higher education students in England and Wales (Office for National Statistics [ONS], 2018). The report indicated that rates of suicide amongst higher education students seem to have risen over the past decade, although statisticians suggested that it is difficult to conclude whether increases are statistically significant, due to relatively small numbers of suicides year-on-year.

Whilst ONS statistics suggest that university student suicide may be increasing, they also indicate that higher education students are at a lower risk of suicide than similar-aged individuals in the general population. Such a finding may dissipate concerns or interest in student suicide. However, regardless of the relative risk, the issue remains that student suicide rates seem to be increasing. Whilst government statistics are limited in what can be concluded, a recent study by Eskin et al. (2016) reported that in a sample of 150 UK university students, 15.3% had experienced suicidal thoughts within the past 12 months and 2.7% had made a suicide attempt, indicating that suicidal behaviour is an on-going issue amongst UK university students.

In view of the concerns about suicidal behaviours amongst UK university students, this study explored the tenets of the ideation to action models (the IPT and the 3ST) as explanations for suicidal behaviours amongst this population. Given the increases in suicide amongst young people, contrary to the sample in Dhingra et al. (2019), this study explored suicidal behaviours specifically amongst *young* university students, aged 29 years and under.

In line with the findings of Dhingra et al. (2019), it was predicted that: i) a combination of perceived burdensomeness and thwarted belongingness would

predict suicidal ideation; ii) a combination of hopelessness and psychological pain would also predict suicidal ideation and, iii) the combination of hopelessness and psychological pain (3ST) would predict suicidal ideation more effectively than the combination of perceived burdensomeness and thwarted belongingness (IPT).

2. Methods

This study formed part of a joint research project investigating the availability and efficacy of support services available to suicidal students (Adams, 2020; see Appendix A for details of joint and independent work).

2.1 Design

A cross-sectional survey design was employed to collect quantitative data exploring potential risk factors for student suicidal behaviour.

2.2 Procedures

Prior to the development of the online survey, semi-structured interviews (see Appendix B for the interview schedule) were conducted with five university students who had experienced suicidal ideation (see Appendix C for demographics table), to identify any additional risk factors not captured by the 3ST or the IPT models being tested. Interview participants were recruited from a London university via university student newsletters, campus TV screens and posters on student notice boards (see Appendix D for recruitment flyer and Appendices E – H for interview information sheet, consent form, demographics form and debrief materials). Interviews were transcribed and subjected to thematic analysis, in accordance with guidelines

proposed by Braun and Clarke (2006). The themes identified were explored further in the online survey (see Appendix I for thematic map and Appendix J for supporting quotes), to allow risk factors identified to be investigated on a large-scale level.

2.3 Participant Involvement

Participants who took part in the initial interview phase were subsequently invited to pilot the online survey and to offer feedback on several aspects of the survey, including: design; length; wording; how well the survey could be tolerated and whether any errors were identified.

Of the five individuals who attended interviews, one was also available to attend the survey development consultation. Additionally, another individual who was unavailable during the interview phase consented to take part in the survey development. Thus, two participants piloted the online survey and adjustments were made accordingly. Both participants offered positive feedback generally and the participant who was also interviewed reported that the survey successfully captured the experience of suicidal thinking that she had tried to communicate.

2.4 Survey Participants

2.4.1 Eligibility criteria

To be eligible for the online survey, participants were required to be: 1) a university student; 2) living and studying in the UK; 3) 29 years of age or younger. Students were invited to take part in the study regardless of whether or not they had experienced suicidal thinking.

2.4.2 Sample

436 UK university students took part in the survey. 16 participants who were over age 29 years were excluded from analysis. An additional five participants were excluded as they did not detail their age and thus it was unclear whether they met the age inclusion criteria. Thus, 415 respondents met study eligibility criteria. A further 60 respondents were excluded due to missing data (see 2.9 Missing Data). The final dataset consisted of responses from 355 students (see Appendix K for demographics table) aged between 17 and 29 years (M = 20.8, SE = 0.14). Of these, 83.1% (n = 295) were female, 82.5% (n = 293) were undergraduate students and 83.4% (n = 296) were UK home students. 83.1% (n = 295) of respondents were White British/Northern Irish/other, 51.8% (n = 184) identified as heterosexual and, 83.4% (n = 296) indicated that they had no physical or learning disability. The sample demographics observed in this study are similar to the national student demographic statistics (see Appendix K), with the exception of an over-representation of female students in our sample and an under-representation of black African/Caribbean/British students.

2.5 Recruitment and Procedures

59 UK universities were contacted and asked to advertise this study across student forums. UK universities were contacted if information for the university communications team could be found online. Of the 59 universities, 6 agreed to advertise study materials, 7 declined due to high demands for research advertisement, and 46 did not reply. A national research network also agreed to advertise this study on their website. Participants were also recruited via advertisements on social media websites, including Facebook, Twitter and Instagram. Twitter posts were re-tweeted by 7 mental health and suicide prevention

charities, 1 mental health research network and by numerous academics, researchers and individual Twitter users. Facebook advertising was purchased so that study advertisements appeared on the Facebook feeds of students across the UK; 527 individuals followed links to the study website via Facebook advertisements. It is not known how many participants were recruited via social media posts, university student forums or via the research network but spikes in response rates were frequently observed following social media posts, particularly on Facebook and Twitter. During the final month of recruitment, numerous universities had also closed due to COVID-19 concerns and thus recruitment through university platforms was no longer possible during this time.

Study advertisements (Appendix L) directed potential participants to a website developed for this study (https://understandingstudentsuicide.wordpress.com/). The website provided information about the researchers and the aims of the study, as well as allowing people to access and download the study information sheet (Appendix M), consent form (Appendix N) and self-help materials relating to experiences of suicidal ideation (Appendix H). Signposting to sources of support was also included on the website. Finally, the website contained a link to the online survey, for individuals who wished to proceed to the study. Participation in this study was voluntary and no direct incentives were provided. However, participants were informed that £2 would be donated to the youth suicide prevention charity, Papyrus, for each completed survey, up to the amount of £670.

2.6 Ethical Considerations

At the start of the online survey, the study information sheet and consent form were displayed to ensure that participants had read this material. Participants were not

able to proceed to the survey unless they consented to taking part in the study, indicated by ticking all check boxes.

It was anticipated that both suicidal and non-suicidal students would take part in this study and that suicidal students might be particularly vulnerable to the content explored in the survey, which focused on potential reasons that individuals may feel suicidal. As such, several measures were taken to manage potential risk or distress. Prior to beginning the survey, all participants were informed that the survey might discuss issues they found distressing, such as suicidal feelings or mental health difficulties. They were reminded that participation was voluntary and that they had the right to withdraw their participation at any time. If participants still wished to take part, they were advised not to begin the survey at a time when they were feeling distressed. On each page of the survey, there was a button participants could click if they were feeling distressed, which re-directed them to self-help materials and sign-posted them to several sources of support. They were also advised to contact the principal investigator if they required further support. This study was approved by the UCL Research Ethics Committee (REC reference 15819/001; Appendix O).

2.7 Measures

2.7.1 Demographics

Demographic information was obtained from participants (see Appendix P for Demographic Form) and included age, gender, ethnicity, relationship status, sexuality, disability, student type (UK, EU or overseas), degree level (undergraduate or postgraduate) and perceived financial situation (“It’s a financial struggle” or “Things are tight, but doing fine” or “Not a problem”).

2.7.2 Ideation to Action Model Variables

2.7.2.1 Perceived Burdensomeness and Thwarted Belonging:

The Interpersonal Needs Questionnaire (INQ; Van Orden, Witte, Gordon, Bender & Joiner, 2008) is a 15-item scale (Appendix Q), with 9 items measuring thwarted belongingness (e.g. “These days, I feel disconnected from other people”) and 6 items measuring perceived burdensomeness (e.g. “These days, the people in my life would be happier without me”). Individuals respond to statements using a 7-point likert scale ranging from 1 (“not at all true for me”) to 7 (”very true for me”). Higher scores on each subscale reflect higher levels of perceived burdensomeness and thwarted belongingness. The INQ has demonstrated good model fit in confirmatory factor analyses and good internal consistency across several different populations, including adolescent and adult samples (Hill et al., 2015). In the current sample, both the perceived burdensomeness subscale (α = .96) and the thwarted belongingness subscale (α = .92) demonstrated excellent internal consistency.

2.7.2.2 Psychological pain: The Psychache Scale (Holden, Mehta, Cunningham & Mcleod, 2001) is a 13-item questionnaire (Appendix R) developed to measure Shneidman’s (1998) concept of “psychache”, a concept that describes psychological pain (e.g. Psychologically, I feel terrible”). For 9 items, participants respond on a 5-point likert scale, ranging from 1 (“Never”) to 5 (“Always”). For the remaining 4 statements, responses are given on a 5-point likert scale ranging from 1 (“Strongly disagree”) to 5 (“Strongly agree”). Higher scores represent higher levels of psychological pain. This measure has demonstrated excellent internal consistency (α = .92) and good construct and criterion validity within university student samples (Holden et al., 2001). Excellent internal consistency was also demonstrated by the Psychache Scale in the current sample (α = .97).

2.7.2.3 Hopelessness: Hopelessness was measured using a brief 2-item scale created by Everson et al. (1996). The items are as follows: “The future seems to me to be hopeless and I can’t believe that things are changing for the better” and “I feel that it is impossible to reach the goals I would like to strive for”. Everson et al. selected these two items from a battery of psychosocial measures used in their Kuopio Ischemic Heart Disease study. Participants respond to statements using a 5-point likert scale, ranging from 0 (“Absolutely agree”) to 4 (“Absolutely disagree”). Total hopelessness scores range from 0-8 and items are reverse-scored, such that higher scores indicate greater hopelessness. This measure has demonstrated good internal consistency (α = .89) and excellent concurrent validity (r = .93) with the Beck Hopelessness Scale (Beck, Weissman, Lester & Trexler, 1974), a gold standard measurement of hopelessness. In the current sample, the 2-item scale demonstrated good internal consistency (α = .82).

2.7.2.4 Depression: The PHQ-9 (Kroenke, Spitzer & Williams, 2001) is a 9-item measure of depression (see Appendix S) that was based on DSM-IV (American Psychiatric Association, 2000) criteria for Major Depressive Disorder. It measures 9 different aspects of depression including: little interest or pleasure in things; low mood or hopelessness; sleep difficulties; tiredness or loss of energy; eating concerns; beliefs about being a failure; concentrating difficulties; psychomotor retardation or agitation and thoughts of self-harm or suicide. Respondents are asked how often they have felt bothered by each problem (e.g. “Feeling down, depressed, or hopeless”) in the past two weeks and they respond on a 4-point likert scale ranging from 0 (“Not at all”) to 3 (“Nearly every day”). Higher scores represent greater levels of depression. Scores of 10 or more on the PHQ-9 (corresponding to moderate or more severe depression), have been shown to have a sensitivity of 88% and a specificity of 88% for major depression disorder (Kroenke,

Spitzer & Williams, 2001). The PHQ-9 has demonstrated good internal consistency in previous research (α = .89; Kroenke, Spitzer and Williams, 2001) and excellent consistency in this sample (α = .94).

2.7.3 Risk Factors Identified During Survey Development

2.7.3.1 Perceived Academic Performance: A single item was used to measure the perceived academic performance of students: “Please select the option which best describes how you perceive your overall academic performance”. Responses were recorded on a 4-point likert scale, ranging from 1-4, and response options included “Failing”, “Below average”, “Average” and “Above average”. Lower scores represented perceptions of poor academic performance and higher scores represented perceptions of good academic performance.

2.7.3.2 Prioritisation of Academic Goals: A single item was used to measure the extent to which students prioritised their studies over their own well-being: “My academic studies take priority over taking care of myself”. Responses were recorded on a 5-point likert scale and response options included “Never”, “Rarely”, “Sometimes”, “Often” and “Always”. Higher scores represented higher prioritisation of academia over health.

2.7.3.3 Perceived External Pressure to Succeed: A single item was used to measure the extent to which students perceived that they were under pressure from other people or institutions to succeed in their academic studies: “I feel that there is pressure on me from other people to be successful in my studies”. Responses were recorded on a 5-point likert scale and options included “Never”,

"Rarely", "Sometimes", "Often" and "Always". Higher scores represented greater perceived external pressure to succeed.

2.7.3.4 Perceived Institutional Support Regarding Wellbeing: A single item was used to measure the extent to which students perceived that their university systems or staff valued and supported students' well-being: "To what extent do you feel that your university values students' wellbeing?". Responses were recorded on a 4-point likert scale and options included "Not at all", "A little", "Somewhat", and "A great deal". Lower scores represented lower perceived value of students' wellbeing.

2.7.3.5 Maladaptive Perfectionism: The Almost Perfect Scale-Revised (APSR; Slaney, Rice, Mobley Trippi & Ashby, 2001) is a 23-item measure of perfectionism (see Appendix T) consisting of three subscales measuring "standards" (perfectionistic strivings and high expectations about performance), "discrepancy" (the perceived gap between one's achievement and expectations) and "order" (a preference for organisation). The 12-item discrepancy subscale was used in this study as it captured both the workload demands and the perceived inadequacy discussed at interview. Participants responded to the statements (e.g "I often feel frustrated because I can't meet my goals") on a 7-point likert scale, ranging from 1 ("Strongly disagree") to 7 ("Strongly agree". Higher scores indicate greater levels of maladaptive perfectionism. Research into cut-off points suggests that scores of 42 or above indicate maladaptive perfectionism whilst scores of below 42 indicate adaptive perfectionism (Rice & Ashby, 2007). The Discrepancy subscale has demonstrated excellent internal consistency ($\alpha = .92$) (Slaney, Rice, Mobley & Ashby, 2001) and predictive validity in relation to negative health outcomes such as

depression and anxiety (Elion, Wang, Slaney & French, 2010; Gilman, Adams & Nounopoulos, 2011). Excellent internal consistency was also demonstrated by the discrepancy subscale in the current sample (α = .97).

2.7.3.6 Relationship Status Satisfaction: After indicating their relationship status in the demographics form, a single-item measure was used to gage participant satisfaction with their relationship status: “Are you content with your relationship status”. Response options included “Yes” and “No”. Responses were analysed as a binary variable.

2.7.4 Measures of Suicidal Behaviour

2.7.4.1 Suicidal Ideation: Suicidal ideation was measured using a single item; “Since starting university, have you had thoughts of ending your own life”. Response options for each item were “Yes” or “No”. ‘No’ responses were coded as 0 and yes responses were coded as 1.

2.7.4.2 Suicide Attempts: A single item was used to measure suicide attempts; “Since starting university, have you made an actual attempt to end your own life”. Response options for each item were “Yes” or “No”. ‘No’ responses were coded as 0 and yes responses were coded as 1.

2.8 Data Analysis

All statistical analyses were performed using the Statistical Package for Social Sciences (SPSS, version 26.0 for Windows). First, descriptive analyses exploring the prevalence of suicidal ideation and attempts within the sample were conducted.

Average scores and response frequencies of predictor variables were also compared between respondents who had experienced suicidal ideation and those who had not. Pearson's Chi-squared tests and Mann-Whitney U tests were used to explore the statistical significance of differences observed between these two groups. The primary function of these analyses was to identify which factors varied significantly across the groups and thus which variables warranted further exploration in regression analyses. Two separate hierarchical logistic regression analyses were conducted to explore the predictive ability of the Three Step Theory and the Interpersonal-Psychological Theory of suicide. A third exploratory regression analysis was conducted to explore the predictive ability of the risk factors identified by students at interview. Finally, a mediation analysis was conducted to explore whether risk factors identified at interview directly or indirectly predicted suicidal ideation, via psychache (as the 3ST proposes, see Chapter 1). The mediation analysis was conducted using the PROCESS path analysis modelling tool for SPSS (see Hayes, 2017).

2.9 Missing Data

Of the 415 respondents who met the eligibility criteria for this study, 80.2% (n = 333) completed the entire survey and 19.8% (n = 82) did not. Listwise deletion was employed to analyse data; non-completers were excluded from analysis. The exceptions to the listwise deletion strategy were 22 respondents who completed all but the final scale of the survey which was a measure of perfectionism. The decision was made to retain these cases on the basis that these respondents completed all variable measures that were used to explore the existing ideation to action models. The measure of perfectionism that was missed was only factored into the exploratory regression model used to investigate risk factors identified at interview.

Thus, in total, 60 respondents were excluded from analysis due to missing data. The final dataset included 355 students.

To assess for any differences between survey completers and non-completers, Pearson's Chi-squared tests were used to explore categorical variables and Mann-Whitney U tests were used to explore continuous variables. No differences in gender ($\chi^2(2) = 1.12$, $p = .572$), sexuality ($\chi^2(1) = 1.15$, $p = .284$), ethnicity ($\chi^2(6) = 6.69$, $p = .350$) or depression scores ($U = 11478.00$, $p = .712$) were observed between completers and non-completers. However, significant differences were observed in age ($U = 10345.50$, $p < .05$), with completers ($M = 20.86$, $SE = .149$) being older than non-completers ($M = 20.23$, $SE = .289$).

3. Results

Of the 355 students who took part in this study, 60.6% (n = 215) reported experiencing suicidal ideation since starting at university and 13.2% (n = 47) of students reported that they had made at least one suicide attempt.

Descriptive statistics for categorical variables are shown in Table 1 and descriptive statistics for continuous variables are shown in Table 2. Chi-squared tests indicated that gender ($\chi^2(2) = 13.04$, $p < .001$), sexuality ($\chi^2(1) = 59.32$, $p < .001$), study level ($\chi^2(1) = 10.91$, $p < .001$), financial situation ($\chi^2(1) = 9.95$, $p = .002$), relationship status ($\chi^2(1) = 9.52$, $p = .002$), relationship status contentment ($\chi^2(1) = 8.22$, $p = .004$), perceived academic performance ($\chi^2(3) = 20.87$, $p < .001$), work-prioritisation ($\chi^2(4) = 23.09$, $p < .001$), pressure from others to succeed ($\chi^2(4) = 37.99$, $p < .001$) and beliefs that students are valued by university institutions ($\chi^2(3) = 13.91$, $p = .003$) differed significantly between individuals who experienced suicidal thinking and those who did not. Ethnicity ($\chi^2(6) = 9.30$, $p = .158$) did not differ significantly between these groups.

Table 1

Frequencies and Percentages of Nominal and Ordinal Study Variables

Variable		No Suicidal Ideation		Suicidal Ideation	
		Frequency	Percent	Frequency	Percent
Gender	Male	30	21.4	22	10.2
	Female	110	78.6	185	86.0
	Transgender	0	0.0	8	3.7
	Total	140	100.0	215	100.0
Sexuality	Heterosexual	108	77.1	76	35.3
	LGBTQ+	32	22.9	139	64.7
	Total	140	100.0	215	100.0
Ethnicity	White British	90	64.3	165	76.7
	White Other	21	15.0	19	8.8
	Mixed	8	5.7	5	2.3
	Asian	16	11.4	19	8.8
	Black	2	1.4	5	2.3
	Other	3	2.1	2	0.9
	Total	140	100.0	215	100.0
Relationship Status	Single	66	47.1	137	63.7
	In a Rel.	74	52.9	78	36.3
	Total	140	100.0	215	100.0
Relationship Status Contentment	Yes	111	79.3	140	65.1
	No	29	20.7	75	34.9
	Total	140	100.0	215	100.0
Study Level	Undergraduate	104	74.3	189	87.9
	Postgraduate	36	25.7	26	12.1
	Total	140	100.0	215	100.0
Financial Situation	Manageable	131	93.6	176	81.9
	Difficulties	9	6.4	39	18.1
	Total	140	100.0	215	100.0
Perceived Academic Performance	Failing	1	0.7	11	5.1
	Below average	10	7.1	47	21.9
	Average	81	57.9	106	49.3
	Above average	48	34.3	51	23.7
	Total	140	100.0	215	100.0
Perceived Institutional Consideration of Student Wellbeing	Not at all	6	4.3	26	12.1
	A little	32	22.9	59	27.4
	Somewhat	59	42.1	94	43.7
	A great deal	43	30.7	36	16.7
	Total	140	100.0	215	100.0
Pressure from Others to Succeed	Never	8	5.7	5	2.3
	Rarely	13	9.3	12	5.6
	Sometimes	56	40.0	38	17.7
	Often	36	25.7	60	27.9
	Always	27	19.3	100	46.5
	Total	140	100.0	215	100.0

Variable		No Suicidal Ideation		Suicidal Ideation	
		Frequency	Percent	Frequency	Percent
Work Prioritisation	Never	11	7.9	9	4.2
	Rarely	35	25.0	25	11.6
	Sometimes	53	37.9	70	32.6
	Often	32	22.9	74	34.4
	Always	9	6.4	37	17.2
	Total	140	100.0	215	100.0

Note. Mixed = Mixed Ethnic groups; Asian = Asian/Asian British; Black = Black/African/ Caribbean/British; Other = Other/prefer not to say; Rel. = Relationship

Table 2

Descriptive Statistics of Continuous Study Variables

	No Suicidal Ideation			**Suicidal Ideation**		
	N	Mean	S.E.M	n	Mean	S.E.M
Age (years)	140	21.00	0.27	215	20.69	0.16
Depression	140	6.46	0.38	215	17.53	0.44
Hopelessness	140	2.07	0.17	215	5.18	0.15
Perceived Burdensomeness	140	8.90	0.45	215	23.36	0.73
Thwarted Belongingness	140	24.23	0.99	215	38.31	0.68
Psychache	140	20.47	0.73	215	42.63	0.85
Perfectionism	133	47.86	1.67	200	69.53	0.98

Mann-Whitney U tests also indicated that depression ($U = 2838.00$, $p < .001$), hopelessness ($U = 4653.00$, $p < .001$), perceived burdensomeness ($U = 23213.50$, $p < .001$), thwarted belongingness ($U = 5541.00$, $p < .001$), psychache ($U = 2307.50$, $p < .001$) and perfectionism ($U = 4987.50$, $p < .001$) significantly differed between students who had experienced suicidal ideation and those who had not, but age did not differ significantly across these groups ($U = 14378.00$, $p = .472$). As regression analyses were the main, most robust, statistical tests intended to explore the predictive ability of the independent variables, and as the primary function of the Chi-squared tests and the Mann-Whitney U tests were to identify which variables

differed significantly and should thus be explored further in regression analyses, corrections controlling for multiple comparisons were not made at this stage.

3.1 Logistic Regression Analyses

To test the extent to which each of the ideation to action models would predict suicidal ideation, two separate logistic regression analyses were run. The first model tested the predictive ability of the Interpersonal-Psychological Theory of suicide (thwarted belongingness and perceived burdensomeness) and the second model tested the Three Step Theory (hopelessness and psychache).

Prior to running regression analyses, the data was explored to check if the assumptions of logistic regression were met. Concerning the assumption of multicollinearity, relatively high correlations were observed between continuous variables (see Table 3) and particularly between depression and pscyhache (r_s =.85, p < .01). However, tolerance values and VIF statistics were all within the acceptable limits (Field, 2009), indicating that multicollinearity was not an issue. With regards to the assumption of independent errors, whilst the Durbin-Watson statistics for model one (1.88) and two (1.89) differed slightly from 2 (the value which indicates that the assumption of independent errors is met), values listed in the Durbin-Watson tables indicated that the statistics observed were within acceptable limits. Thus, the assumption of independent errors was met. Regarding the assumption of linearity (between any continuous predictor and the logit of the outcome variable), the assumption was met for all continuous variables in model one, but the psychache variable in model two violated this assumption. Transformations of the variable were unable to correct this violation and thus the regression model was run as is.

Table 3

Correlation matrix of continuous variables included in hierarchical regression analyses

	1	2	3	4	5
1. Depression	-				
2. Hopelessness	.75**	-			
3. Psychache	.85**	.73**	-		
4. Perceived Burdensomeness	.78**	.71**	.77**	-	
5. Thwarted Belongingness	.66**	.62**	.66*	.70**	-

Note. ** Correlation is significant at the 0.01 level

3.1.1 Hypothesis i: The combination of perceived burdensomeness and thwarted belongingness will predict suicidal ideation.

A three-step hierarchical model was executed with suicidal ideation (yes/no) as the outcome variable. Forced entry was employed at each step. In the first step, depression scores, gender, sexuality and level of student study (undergraduate or postgraduate) were entered into the model to control for these variables, given that Chi-squared tests and Mann-Whitney U tests indicated significant differences between suicide ideators and non-ideators on these measures. In step two, perceived burdensomeness and thwarted belongingness were entered simultaneously. In step three, the interaction term between perceived burdensomeness and thwarted belongingness was entered.

At step one, the model was significant ($\chi^2(5) = 226.20$, $p < .001$) and accounted for 63.8% (Nagelkerke R^2) of the variance in suicidal ideation (see Table 4). The predictive success of the model was 85.1% (87.9% of the suicidal ideation group and 80.7% of the non-suicidal group were correctly predicted). PHQ-9 scores (b = .29, Wald = 76.28, $p < .001$) and sexuality (b = 1.21, Wald = 13.54, $p < .001$)

Table 4

Regression Coefficients, 95% CIs and Significance of PB and TB on Suicidal Ideation (n = 355)

Variables	NagelKerke R2	Chi-Square	*β*	S.E.	Wald	*P*	Odds Ratio	95% CI
Block 1 (Constant)	0.638	226.20***	(-3.40)	(0.44)	(58.59)	(< .001)	(0.03)	
PHQ-9			0.29	0.03	76.28	< .001	1.33	1.25 - 1.42
Gender (f vs f)			-	-	-	-	-	-
Gender (f vs m)			-0.25	0.45	0.30	0.58	0.78	0.32 - 1.90
Gender (f vs t)			‡	‡	‡	‡	‡	‡
Sexuality			1.21	0.33	13.54	< .001	3.36	1.76 - 6.40
Study level			0.38	0.43	0.79	0.37	1.46	0.63 - 3.36
Block 2 (Constant)	0.680	21.41***	(-4.08)	(0.56)	(52.49)	(< .001)	(0.02)	
PHQ-9			0.21	0.04	31.52	< .001	1.24	1.15 - 1.33
Gender (f vs f)			-	-	-	-	-	-
Gender (f vs m)			-0.22	0.48	0.22	0.64	0.80	0.31 - 2.05
Gender (f vs t)			‡	‡	‡	‡	‡	‡
Sexuality			1.14	0.35	10.64	< .001	3.12	1.58 - 6.18
Study level			0.52	0.44	1.4	0.23	1.68	0.71 - 3.94
PB			0.12	0.03	14.45	< .001	1.12	1.06 - 1.19
TB			-0.00	0.02	0.01	0.91	0.99	0.96 - 1.04
Block 3 (Constant)	0.690	5.10*	(-4.08)	(0.56)	(52.49)	(< .001)	(0.02)	
PHQ-9			0.21	0.04	31.52	< .001	1.24	1.15 - 1.33
Gender (f vs f)			-	-	-	-	-	-
Gender (f vs m)			-0.22	0.48	0.22	0.64	0.80	0.31 - 2.05
Gender (f vs t)			‡	‡	‡	‡	‡	‡
Sexuality			1.14	0.35	10.64	< .001	3.12	1.58 - 6.18
Study level			0.52	0.44	1.20	0.24	1.68	0.71 - 3.94
PB			0.12	0.03	14.45	< .001	1.12	1.06 - 1.91
TB			-0.00	0.02	0.01	0.91	0.99	0.96 - 1.04
PB*TB			-4.08	0.56	52.49	< .001	0.02	

Note. -Reference category (Female); ‡ figures omitted owing to statistical imprecision; f = female; m = male; t = transgender; PB = perceived burdensomeness; TB = thwarted belongingness; ****p* < .001; ***p* <. 01; **p* < .05

contributed unique variance to the model. The regression coefficient indicated that higher depression scores, and identifying as a sexuality other than heterosexual, increased the likelihood of being in the group of students who experienced suicidal ideation. No level of gender (male, female, or transgender) or study (undergraduate or postgraduate) contributed significant, unique explanatory variance to the model. Values for the trans gender category have been omitted from presentation in Table 4 as only eight respondents identified as transgender, all of whom reported experiencing suicidal ideation and, as such, extreme odds ratios were estimated and 95% confidence intervals could not be calculated owing to the level of imprecision. However, these eight cases were still controlled for and not omitted from analysis, only from presentation, as it was deemed that the deletion of these cases based on sociodemographic information may have introduced bias in relation to other study variables.

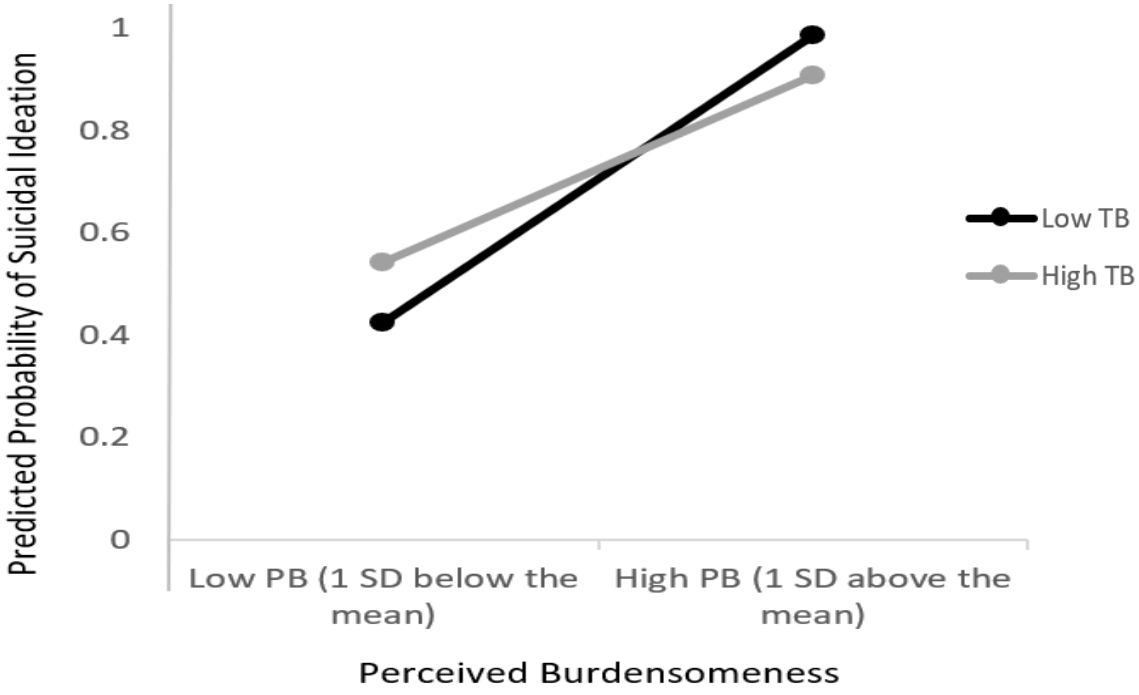
In step two, the addition of perceived burdensomeness and thwarted belongingness improved the model's ability to predict the likelihood of students falling into the suicidal ideation category ($\chi^2(2) = 21.41$, $p < .001$) and the model accounted for an additional 4.2% of the variance in suicidal ideation (Nagelkerke $R^2 = .680$). The predictive success of the model was 85.6% (87.4% of the suicidal ideation group and 82.9% of the non-suicidal group). Whilst perceived burdensomeness contributed unique variance to the model's predictive ability ($b = .12$, Wald = 14.45, $p < .001$), thwarted belongingness did not ($b = 0.002$, Wald = 0.01, $p = .914$). The regression coefficient indicated that higher perceived burdensomeness scores increased the likelihood of being in the group of students who experienced suicidal ideation. Based on the odds ratio, for each one-point increase in perceived burdensomeness scores, the odds of suicidal ideation increased by 1.12 (odds ratio = 1.12, 95% CIs = 1.06 – 1.19).

In the final step, the addition of the perceived burdensomeness*thwarted belongingness interaction significantly improved the predictive ability of the overall model ($\chi^2(1) = .5.098$, $p = .024$) and accounted for an additional 1% of the variance in suicidal ideation. Thus, the final model explained 69% of the variance in suicidal ideation (Nagelkerke $R^2 = .690$). The predictive success of the final model was 85.4% (87.4% of the suicidal ideation group and 82.1% of the non-suicidal group were correctly predicted). The regression coefficient value indicated a change in the direction of the relationship between the predictor variable and the outcome ($b = -4.08$, Wald = 14.45, $p < .001$) such that increases in the PB*TB interaction would result in a decreased likelihood of experiencing suicidal ideation.

In order to better understand the interaction effect between perceived burdensomeness and thwarted belongingness, these variables were dichotomised at high and low levels and the effect was explored graphically (see Figure 1). Figure 1 shows the predicted probability of individuals having experienced suicidal ideation when perceived burdensomeness and thwarted belongingness are low (1SD below the mean average) and high (1SD above the mean average). The Figure illustrates a small but significant interaction effect. When perceived burdensomeness is low, there is a greater probability of having experienced suicidal ideation when thwarted belongingness is high (predicted probability = 0.54) compared to when it is low (predicted probability = 0.42). However, when perceived burdensomeness is high, there is a greater probability of having experienced suicidal ideation when levels of thwarted belongingness are low (predicted probability = 0.98) compared to when they are high (predicted probability = 0.90). Regardless of thwarted belongingness, the probability of having experienced suicidal ideation is much greater when perceived burdensomeness is high, compared to when it is low.

Figure 1

The Interaction of Perceived Burdensomeness and Thwarted Belongingness on Suicidal Ideation



Note. PB = perceived burdensomeness; TB = Thwarted belongingness

3.1.2 Hypothesis ii & iii: The combination of hopelessness and psychological pain (3ST) will predict suicidal ideation, and more effectively than the combination of perceived burdensomeness and thwarted belongingness (IPT).

The second hierarchical logistic regression tested the predictive ability of the 3ST. A three-step hierarchical model was again executed with suicidal ideation (yes/no) as the outcome variable. Forced entry was employed at each step. PHQ-9 scores, gender, sexuality and level of student study were again controlled for in step one of the model. At step two, hopelessness and psychache were entered and in step three, the interaction term between these variables was added. As before, the

control variable model was significant ($\chi^2(5) = 226.20$, $p < .001$) and accounted for 63.8% (Nagelkerke R^2) of the variance in suicidal ideation in step one (see Table 5) and, as before, only PHQ-9 scores ($b = .29$, Wald = 76.28, $p < .001$) and sexuality (b = 1.21, Wald = 13.54, $p < .001$) contributed unique variance to the model. Again, values for the trans gender category have been omitted from presentation but retained in analysis.

In step two, the simultaneous addition of psychache and hopelessness significantly improved the model's ability to predict the likelihood of students falling into the suicidal ideation group ($\chi^2(2) = 27.29$, $p < .001$) and the model accounted for an additional 5.3% of the variance in suicidal ideation (Nagelkerke $R^2 = .691$). The predictive success of the model was 86.5% (88.8% of the suicidal ideation group and 82.9% of the non-suicidal group were correctly predicted). Whilst psychache contributed unique variance to the model's predictive ability ($b = .10$, Wald = 19.41, $p < .001$), hopelessness did not ($b = .09$, Wald = 0.92, $p = .337$). The regression coefficient for psychache indicated that higher psychache scores increased the odds of being in the group of students who experienced suicidal ideation. Based on the odds ratio, for each one-point increase in psychache scores, the odds of suicidal ideation increased by 1.10 (odds ratio = 1.10, 95% Cis = 1.06 – 1.15).

In the final step, the addition of the hopelessness*psychache interaction did not significantly improve the predictive ability of the model ($\chi^2(1) = .131$, $p = .717$). Thus, the overall model explained 69.1% (Nagelkerke R^2) of the variance in suicidal ideation. As such, the Three Step Theory explained 0.1% more variance in suicidal ideation than the Interpersonal-Psychological Theory of suicide and correctly predicted 1.1% more cases (n = 4).

In order to test whether the risk factors identified at interview would significantly predict suicidal ideation amongst survey participants, a third logistic regression was

Table 5

Regression Coefficients, 95% CIs and Significance of Psychache and Hopelessness on Suicidal Ideation (n = 355)

Variables	NagelKerke R2	Chi-Square	*β*	S.E.	Wald	*P*	Odds Ratio	95% CI
Block 1 (Constant)	0.638	226.20***	(-3.65)	(0.54)	(45.82)	(< .001)	(0.03)	
PHQ-9			0.29	0.03	76.28	< .001	1.33	1.25 - 1.42
Gender (f vs f)			-	-	-	-	-	-
Gender (f vs m)			-0.25	0.45	0.30	0.58	1.28	0.53 - 3.13
Gender (f vs t)			‡	‡	‡	‡	‡	‡
Sexuality			1.21	0.33	13.54	< .001	3.36	1.76 - 6.40
Study level			0.38	0.43	0.79	0.37	1.46	0.63 - 3.36
Block 2 (Constant)	0.691	27.29***	(-5.04)	(0.67)	(56.34)	(< .001)		
PHQ-9			0.13	0.04	8.45	0.004	1.14	1.04 - 1.24
Gender (f vs f)			-	-	-	-	-	-
Gender (f vs m)			0.29	0.48	0.36	0.55	1.34	0.52 - 3.44
Gender (f vs t)			‡	‡	‡	‡	‡	‡
Sexuality			1.02	0.35	8.55	0.003	2.78	1.40 - 5.50
Study level			0.28	0.45	0.38	0.54	1.32	0.55 - 3.19
Hopelessness			0.09	0.09	0.92	0.34	1.09	0.91 - 1.31
Psychache			0.10	0.02	19.41	< .001	1.10	1.06 - 1.15
Block 3 (Constant)	0.691	0.13	(-5.30)	(0.99)	(28.61)	(< .001)	(0.005)	
PHQ-9			0.13	0.05	8.52	0.004	1.14	1.04 - 1.24
Gender (f vs f)			-	-	-	-	-	-
Gender (f vs m)			0.30	0.49	0.39	0.53	1.35	0.52 - 3.51
Gender (f vs t)			‡	‡	‡	‡	‡	‡
Sexuality			1.02	0.35	8.48	0.004	2.77	1.40 - 5.49
Study level			0.29	0.45	0.40	0.53	1.33	0.55 - 3.25
Hopelessness			0.17	0.24	0.50	0.48	1.19	0.74 - 1.90
Psychache			0.11	0.03	10.06	0.002	1.11	1.04 - 1.19
Hopelessness*Psychache			-0.003	0.01	0.13	0.72	0.997	0.98 - 1.01

Note. -Reference category (Female); ‡ figures omitted owing to statistical imprecision; f = female; m = male; t = transgender; PB = perceived burdensomeness; TB = thwarted belongingness; ****p* < .001; ***p* <. 01; **p* < .05

run. Prior to the analysis, the data was explored to check whether the assumptions of logistic regression were met. Concerning the assumption of multicollinearity, tolerance values and VIF statistics indicated that the assumption was met. With regards to the assumption of independent errors, whilst the Durbin-Watson statistic (1.87) differed slightly from 2 (the value which indicates that the assumption of independent errors is met), values listed in the Durbin-Watson tables indicated that statistic observed was within acceptable limits. Thus, the assumption of independent errors was met. The assumption of linearity between any continuous predictors and the logit of the outcome variable was also met.

When running the analysis, PHQ-9 scores and sexuality were entered as covariates in block 1, given that these were the only two covariates to significantly predict suicidal ideation in the first two regression analyses. Perfectionism scores, relationship status, contentment with relationship status, financial situation, perceived academic performance scores, prioritisation of academic goals, externally perceived pressure to succeed and Perceived institutional support regarding wellbeing were entered into a second block using a forward stepwise (likelihood ratio) method, such that the most significant variables were added to the model first and any variables that did not significantly increase predictive ability were excluded from the model. As perfectionism scores were entered into the analysis, 22 cases were excluded from the analysis (n = 233; see 2.9 Missing Data). A two-step model was generated (see Table 6). In the first step, the covariate model of depression and sexuality was significant ($\chi^2(2) = 209.97$, $p < .001$) and accounted for 63.2% (Nagelkerke R^2) of the variance in suicidal ideation. The predictive success of the model was 84.4% (86.5% of the suicidal ideation group and 81.2% of the non-suicidal ideation groups were correctly predicted). In step two, the inclusion of perfectionism scores significantly improved the model's ability to predict the likelihood of students experiencing suicidal ideation ($\chi^2(1) = 4.36$, $p = .037$) and the

Table 6

Regression coefficients, 95% CIs and significance of perfectionism on suicidal ideation (n = 333)

Variables	NagelKerke R2	Chi-Square	*β*	S.E.	Wald	*P*	Odds Ratio	95% CI
Block 1 (Constant)	0.632	209.97***	(-1.91)	(0.40)	(24.06)	(< .001)	(0.14)	
PHQ-9			0.28	0.03	79.12	< .001	1.32	1.24 - 1.41
Sexuality			-1.31	0.34	15.18	< .001	0.27	0.14 - 0.52
Block 2 (Constant)	0.642	4.36*	(-3.03)	(0.67)	(20.64)	(< .001)		
PHQ-9			0.25	0.03	55.24	< .001	1.29	1.20 - 1.37
Sexuality			-1.19	0.34	12.10	< .001	0.30	0.15 - 0.59
Perfectionism			0.02	0.01	4.28	0.04	1.02	1.001 - 1.04

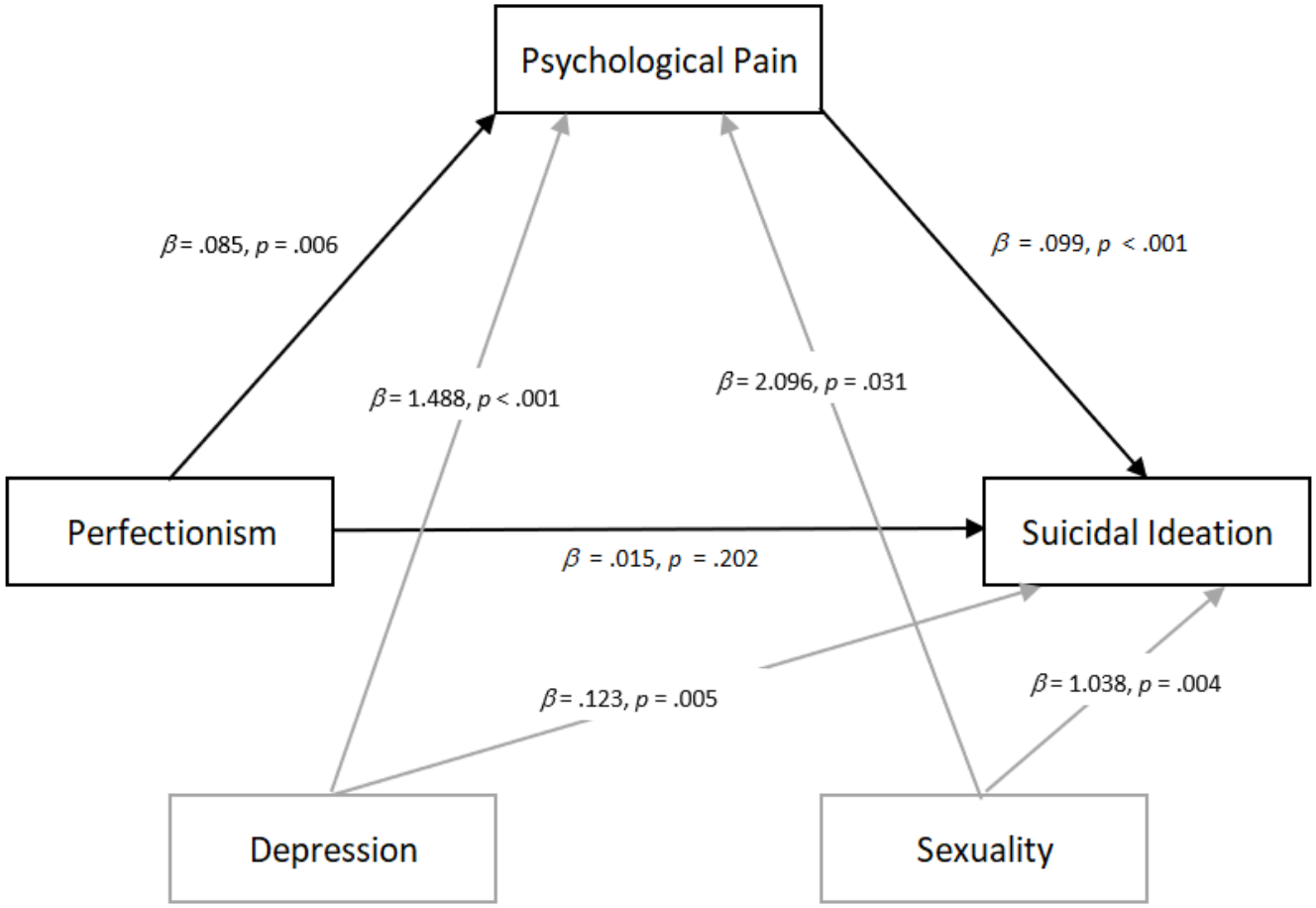
Note. ****p* < .001; ***p* <. 01; **p* < .05

model accounted for an additional 1% of the variance in suicidal ideation (Nagelkerke R^2 = .642). The predictive success of model 2 was 85.6% (88.5% of the suicidal ideation group and 81.2% of the non-suicidal group were correctly predicted). The regression coefficient value for perfectionism (*b* = 0.02, Wald = 4.28, *p* = .04) indicated that higher perfectionism scores increased the likelihood of students experiencing suicidal ideation. Based on the odds ratio, for each one-point increase in perfectionism scores, the odds of suicidal ideation increased by 1.02 (odds ratio = 1.02, 95% Cis = 1.001 – 1.04). No other variables were included in the model or significantly improved the fit of the model to the data.

To explore whether perfectionism had a direct effect on suicidal ideation or whether, as the Three Step Theory predicts, it had an indirect effect through psychache, a mediation analysis was performed. Suicidal ideation was entered as the outcome variable and perfectionism scores were entered as the independent variable. Psychological pain was entered as the mediating variable and depression and sexuality were also controlled for, given that they significantly predicted suicidal ideation in regression analyses. Analyses indicated that the effect of perfectionism on suicidal ideation was fully mediated by psychache (see Figure 2).

Figure 2

Psychological Pain as a Mediator of the Effect of Perfectionism on Suicidal Ideation when Controlling for Depression and Sexuality (n = 333).



As figure 2 shows, the direct effect of perfectionism on suicidal ideation was not significant, *b* = .015, BCa CI [-0.008, 0.038]. However, the standardised regression coefficient between perfectionism and psychache was statistically significant, *b* = .085, BCa CI [0.024, 0.145], as was the standardised regression coefficient between psychache and suicidal ideation, *b* = .099, BCa CI [0.055, 0.144] . The indirect effect was (.085)*(.099) = .008. The significance of this indirect effect was tested using bootstrapping procedures. Unstandardised indirect effects were computed for 5,000 bootstrapped samples. The 95% confidence intervals ranged from .002 to .02 and did not cross 0, thus indicating that the indirect effect of perfectionism on suicidal ideation via psychache was statistically significant.

4. Discussion

The present study sought to understand the risk factors for suicidal ideation amongst young UK university students. Specifically, the explanatory ability of two recently proposed ideation to action models of suicide were explored as a means to understanding suicidal ideation in this population. Several student-identified risk factors were also explored as predictors of suicidal ideation. Partial support was attained for both of the ideation to action models as explanations for suicidal thinking amongst young UK university students. Perfectionism also predicted suicidal ideation, via psychache.

The prevalence of suicidal ideation in this study was 60.6% and 13.2% of students had made at least one suicide attempt since starting at university. Rates of suicidal behaviour reported in this study are much higher than those observed in a recent study (Eskin et al., 2016) which reported that of 150 UK university students, 15.3% had experienced suicidal thoughts within the past 12 months and 2.7% had made a suicide attempt. One possible explanation for this notable discrepancy in findings is that Eskin et al. explored suicidal behaviours within the past 12 months whereas this

study looked at suicidal behaviours since the start of students' university experience. As such, adopting a larger timeframe may have allowed us to capture a more inclusive picture of students' experiences of suicidal behaviour across their studies. Nonetheless, 50.7% (n = 180) of respondents were first year students and thus, according to the timeframe in which the survey was open, these students' responses would have been based on the past 4-6 months of their student life. Additionally, 27% (n = 96) were second year students and thus, for these students, responses were based on the past 18-20 months. Another reason why the prevalence of suicide may have been higher in this study is that survey respondents were self-selected. Thus, it may be that in our study, students with experiences of suicidal behaviours may have been particularly interested in taking part. Finally, the higher incidence of suicidal behaviours observed in this study may mirror the increasing rates of suicide in young people and in university students in the UK (Office for National Statistics, 2018; 2019b).

With regards to the main study findings, partial support was obtained for the first hypothesis that the combination of high perceived burdensomeness and thwarted belongingness would predict suicidal ideation amongst young university students in the UK. Whilst perceived burdensomeness was found to predict suicidal ideation, thwarted belongingness did not contribute unique explanatory variance to the prediction of suicidal ideation. Furthermore, although the interaction effect between perceived burdensomeness and thwarted belonginess significantly predicted suicidal ideation, the direction of this interaction effect was not as predicted; high levels of perceived burdensomeness and low levels of thwarted belongingness interacted to predict the greatest probability of individuals experiencing suicidal ideation. These findings differ from the assertions of the Interpersonal-Psychological Theory of suicide (Joiner, 2005; Van Orden, Witte, Gordon, Bender, & Joiner, 2008) and from the findings of Dhingra et al. (2019) who explored these constructs amongst UK university students of all ages and found that a combination of high

perceived burdensomeness and thwarted belonging predicted suicidal ideation. However, the results of this study are in line with the findings of several previous studies which utilised younger populations and found that thwarted belongingness did not independently predict suicidal ideation (Becker, Foster & Luebbe, 2020; King et al., 2019; Miller, Esposito-Smythers & Leichtweis, 2016; Horton et al., 2016; Opperman, Czyz, Gipson & King, 2015) and that, where present, the nature of the interaction effect was not as the IPT predicts (King et al., 2019). Thus, as previous studies have suggested, the constructs of the IPT may be relevant to suicidal behaviour but may function differently within younger populations, compared to older populations. One possible interpretation of the interaction effect observed in this study is that young people who feel like a burden to others (high perceived burdensomeness) but who are well connected to family or friends (low levels of thwarted belongingness) may experience more guilt or concern about the impact of their experiences on their support networks than someone who does not have access to supportive relationships (high thwarted belongingness) and thus the risk associated with feelings of burdensomeness may be elevated in these individuals. The independent effect of perceived burdensomeness observed on suicidal ideation may indicate that beliefs of burden may be particularly important in understanding suicidal ideation amongst young UK university students, similar to findings observed in younger populations in other countries (King et al., 2019; Miller, Esposito-Smythers & Leichtweis, 2016; Horton et al., 2016).

The second study hypothesis, that high levels of psychological pain and hopelessness would predict suicidal ideation, was also partially supported. Whilst psychache was found to predict suicidal ideation, neither hopelessness nor the interaction term between these variables contributed significantly to the prediction of suicidal ideation. This finding is in contrast to the assumptions of the Three Step Theory (Klonsky & May, 2015) and to the findings of Dhingra et al. (2019) who found that high levels psychache and hopelessness predicted suicidal ideation. One

possible reason for this discrepancy in findings is that whilst analyses conducted in this study controlled for depression, a construct that has been shown to closely relate to hopelessness (see Shahar, Bareket, Rudd & Joiner, 2006; Troister & Holden, 2017), previous studies exploring the Three Step Theory as an explanation for suicidal ideation have not controlled for depression (Yang, Liu, Chen & Li, 2019; Dhingra et al., 2019; Klonsky & May, 2015). Given that the regression analyses often employed to explore these predictors only reflect unique variance contributed by variables, the absence of a significant, unique contribution of hopelessness in this study may reflect a lack of unique explanatory variance, separate to that already explained by depression. Thus, the findings of this study may indicate that depression and psychological pain are more important predictors of suicidal ideation amongst young UK university students than hopelessness.

Whilst, as predicted, the 3ST was found to explain a greater proportion of the variance in suicidal ideation compared to the IPT, the difference between the explanatory ability of these models was minuscule (0.1%, representing 4 cases). Given that the tenets of both of these models were only partially supported, when considering the implications of study findings, it may be more useful to consider the individual predictors of each model which significantly explained suicidal ideation, rather than focusing on which model was superior.

Regarding the risk factors that were identified by students at interview, only perfectionism was found to contribute significant and unique explanatory variance to suicidal ideation. This finding is in line with the considerable body of research indicating that perfectionist tendencies may increase susceptibility to suicidal behaviour (for a review, see Smith et al., 2018). However, to the best of our knowledge, this is the first study to find that the effect of perfectionism on suicidal ideation is mediated by psychological pain. This finding supports the assertion of the Three Step Theory that many of the established risk factors for suicidal behaviour trigger psychological pain which, in turn, leads to a decreased desire to live. Thus,

perfectionism may act as one of many sources of pain which may lead to suicidal thinking. Nonetheless, perfectionism may be particularly relevant to university students as a source of pain, given the meritocracy that exists within educational systems.

4.1 Limitations and Future Directions

The findings of this study should be considered in light of its limitations. First, it is necessary to hold in mind that psychache scores did not meet the assumption of linearity within the logistic regression model implemented to test the Three Step Theory. As such, the results of this analysis must be read with caution and future studies should continue to explore the effects of psychache and hopelessness on suicidal ideation amongst young people. In particular, it is recommended that future researchers continue to explore this relationship when controlling for depression, given that these two constructs are highly correlated.

Second, some of the measures used to explore risk factors in this study were single-item measures. This was especially true for the more novel or nuanced risk factors identified by students at interview (for instance, work- over self-prioritisation or the extent to which university institutions, systems and staff value and prioritise student well-being). Whilst research indicates that single-item measures may have less substantial internal consistency and convergent validity compared to multiple-item measures, it also indicates that they may have greater content validity than multiple-item measures (Fisher, Matthews & Gibbons, 2016). Furthermore, the use of single-item measures may reduce response burden on participants and may allow the exploration of constructs that might otherwise go unexplored (Fisher, Matthews & Gibbons, 2016), as was the case in this study which attempted to explore a broad range of risk factors within one survey. Given the above, single-item measures can be valuable in research and can provide meaningful information.

Nonetheless, future studies may wish to explore some of the risk factors identified at interview further utilising multiple-item measures.

Third, our sample was primarily female and Caucasian and, as such, the generalisabilty of study findings are limited. Furthermore, the majority of our sample indicated that they had experienced suicidal ideation since beginning their university studies which may indicate a self-selection bias in our sample. This elevated level of suicidal ideation within our sample was reflected in the very high predicted probabilities of suicidal ideation observed in this study (for instance, a 98% predicted probability of experiencing suicidal ideation if students had high levels of perceived burdensomeness and low levels of thwarted belongingness). Thus, findings may be skewed towards reflecting how the identified risk factors may operate in individuals who are at a higher risk of suicidal ideation compared to the general student population. A self-selection bias may also be evident when considering that of the eight transgender respondents who took part in this study, all eight reported suicidal ideation during university. However, in the absence of a more substantial sample size, it is difficult to understand whether this unanimous result does indeed indicate a self-selection bias or whether it suggests that young transgender university students may be at an increased risk of suicidal ideation. Future researchers may wish to explore this finding further.

Fourth, this study sought to understand which ideation to action model would best explain suicidal ideation amongst university students but each model only received partial support and neither was superior. Therefore, it may have been useful to explore whether a composite model containing the significant predictors identified in the IPT and 3ST in this study may best explain suicidal ideation amongst this population. Future researchers may wish to explore this further.

Fifth, this study was cross-sectional and cannot shed light on causality within these relationships. Where possible, researchers should aim to utilise longitudinal,

rather than cross-sectional designs, in order to begin to answer questions of causality.

Finally, this study only explored the first step in each of the ideation to action models of suicide, which concerns onset of suicidal ideation. Future studies should continue to contribute to the small but growing body of research into the applicability of the ideation to action models within young populations, utilising the same sample to explore each of the different component steps of the models where possible.

4.2 Implications

Given the findings of this study, there are several important implications. First, for professionals working within student mental health and support services, assessing, working with, and alleviating experiences of depression, psychache and perceived burdensomeness may be important in understanding and supporting the experiences of young, suicidal university students in the UK. Second, given the high levels of mental health difficulties reported in this study, and considering that a large number of young people who experience suicidal ideation will never access support from mental health and wellbeing services (Karbeyaz, Toygar & Çelikel, 2016; Portzky, Audenaert & van Heering, 2009; Li, Phillips, Zhang, Xu & Yang, 2008) encouraging mental health services to consider these risk factors may not be enough. Help-seeking amongst young people may be hindered by numerous factors including stigma, difficulty recognising mental health symptoms (for a review, see Gulliver, Griffiths & Christensen, 2010) or the indecisiveness or loss of energy that is characteristic of depression (American Psychiatric Association, 2013). Thus, mental health interventions may need to be integrated into university curriculums in order to normalise and de-stigmatise mental health experiences and to create accessible spaces and opportunities for students to talk openly about the challenging experiences they face. At a practical level, this may look like mandatory

seminars or workshops that take place several times a term and that interactively explore constructs such as depression, psychological pain and burdensomeness and how they affect students, as well as how these difficulties can be spoken about with peers and supported within services. Seminars and workshops could be facilitated by mental health and wellbeing providers so that responsibility does not rest on students and so that professional help is visible and informally accessible within teaching spaces. It might be useful for these programmes to move away from mental health difficulties as dichotomous (yes or no) and to instead explore the universality of low mood, psychological pain or feeling like a burden sometimes, particularly within the context of student life and experiences.

With regards to the finding that maladaptive perfectionism may be a source of psychological pain for suicidal university students, it may also be helpful to explore perfectionism and to reduce competitiveness within wellbeing seminars and workshops. Another way in which universities could work to reduce maladaptive perfectionism as a source of psychological pain would be to remove grading systems within universities and instead provide students with pass and fail marks, as is done in many postgraduate Psychology Doctorate programmes in the UK and in some undergraduate university courses in the United States of America. To balance the need for high grades to secure jobs after graduating, some institutions have considered writing lengthier references which thoroughly detail students' strengths and areas for development. Such changes may enable a reduction in perfectionist strivings amongst students.

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Part 3: Critical Appraisal

1. Introduction

This critical appraisal reflects on the process of planning for, and conducting, the empirical research study. It focuses on the challenges of time encountered throughout this project and reflects on the real-world implications that these challenges have for research and clinical practice. This critical appraisal also creates space to reflect on the process of conducting the interviews that informed the online survey. Whilst the interviews were not the main aspect of the empirical study, the recruitment, running and analysis of the interviews represent perhaps the most demanding and time-consuming aspect of the project. Given its influence on the development of the online survey, it is important to reflect on the process of interviewing and how the researcher's personal contexts may have impacted on this process and thus the data that was collected.

2. The Constraints of Time

Time restrictions were one of the greatest challenges that I encountered throughout this empirical study and, at times, my aspirations to utilise ideal research designs and methodologies were compromised by the time that was available for this project. The constraints of time were evident from the early stages of research planning. Whilst Chapter one of this project identified a need for longitudinal research exploring the ideation to action models, this study utilised a cross-sectional design as it was not possible to conduct longitudinal research within the allocated timeframe. This dilemma caused me to reflect on the real-world contexts in which clinical research often emerges out of – a context in which time may be limited by competing demands and a trade-off between time and rigour is realistic. Indeed, it is widely acknowledged that whilst longitudinal research designs may be more informative, cross-sectional designs are more frequently employed as they are less

time-exhaustive and less costly (Babbie, 2016). As a result, much of the research that informs clinical interventions is based on a snapshot of a phenomenon and is limited in what it can tell us about causality or change over time. Consequently, there are often gaps in our knowledge about the interventions that we employ in our clinical practice and thus there is a degree of trial and error or "on the job learning". This is perhaps reflected in recent calls for practice-based evidence (PBE) which acknowledges the imperfections involved in clinical work and monitors whether interventions are a 'good enough' fit for clients in order to achieve positive change (Swisher, 2010). My reflections on this topic have impacted my clinical practices in that they have highlighted, and brought to life, the necessity of practice-based evidence, given that we have an incomplete understanding of the interventions that we may employ to support our clients; since beginning my empirical project, I have begun to prioritise PBE more in my clinical role. My reflections on the process of research have also reminded me of the importance of thinking with clients about any given approach or intervention as just one of many possible ways to understand and support experiences of mental health, rather than as an ultimate truth, considering that no one approach is sufficient for all, and that it is questionable whether we as researchers can ever get at an objective truth (for a discussion on realism and anti-realism, see Alston, 2002).

The effects of time on this study were also evident whilst preparing to develop the online survey. As a step towards survey development, interviews were conducted to identify any additional risk factors that might explain suicidal ideation, above and beyond what could be explained by the ideation to action models of suicide. However, the process of recruiting for interviews was slow and arduous. Due to student summer holidays, the initiation of the interview phase was delayed for several months. During recruitment, several students expressed an interest in the interviews but decided not to proceed with meeting and a number of students said

that they were willing to discuss their experiences but were unable to make interview slots. In total, five participants were interviewed about their experiences of suicidal ideation before time limitations required that the online survey was developed and launched. Although several important themes relating to risk were identified at interview, the number of participants that took part was below the 6-12 participants recommended for thematic analyses (Braun & Clarke, 2013) and thus the data collected is unlikely to have achieved thematic saturation. Thus, it is likely that some risk factors for student suicide may not have been brought to light at interview. Whilst this limitation resulted in a missed opportunity, it is perhaps important to consider that this was already an ambitious project and that the inclusion of more risk factors within the online survey may have increased response burden and rates of respondent attrition. This is particularly true considering that the survey collected data for two independent projects. Given that the data in this study is unlikely to have reached saturation, future studies may wish to continue to utilise qualitative methods in order to explore any novel or nuanced risk factors that may explain the rises in suicidal ideation amongst university students and young people. This may be particularly important as the socio-political and economic contexts within which young people function continue to change.

Another limitation that arose as a result of time constraints related to the analysis of the interview transcripts. Whilst interviews were analysed in line with Clark and Braun's (2006) guidelines for thematic analyses (see Appendix U for recommended stages of analysis), the themes that were identified for inclusion in the online survey were based on the first 3-4 recommended steps, rather than all 5-6 steps, as the time that was available to spend on analysis before launching the survey was limited. As a result, when completing the final two or three stages of the thematic analysis, subsequent to the launch of the survey, an additional two themes were identified: 'perceived inferiority' and 'identity shifts'. Consequently, these two themes

were not explored within the survey. As aforementioned, the inclusion of more measures in the survey may have been detrimental to rates of attrition and accurate responding and thus it is perhaps not too concerning that the survey was not extended to explore additional risk factors. However, this omission caused me to reflect further on the fact that all research findings exist within limitations, even those from the most methodologically robust studies. Thus, whilst I initially set out to design a near-perfect study, throughout the research process I have come to accept that perfection cannot be achieved in research and that a meaningful and methodologically reasonable study may be sufficient; even within the context of their limitations, research findings can tell us something meaningful about the phenomenon under investigation.

3. The Interview Process and Self-Reflexivity

Reflexivity is an important tool that can enhance the value of qualitative research by encouraging the consideration, and critiquing, of the researcher bias and subjectivity that will inevitably shape the findings that are obtained (Thompson & Harper, 2011). This may involve researchers attending to how their own social backgrounds, contexts, beliefs and interests will determine what is researched, what methods are used, what questions are asked or not (Barry et al., 1999) and how we make sense of the information that is gathered. Given its impact on the findings, researcher reflexivity and transparency is vital in helping reader's make sense of the study findings and the limitations within which they exist.

Perhaps the first and most prominent personal context that I noticed might influence the way in which my data was collected was that of my role as a Trainee Clinical Psychologist. Prior to the recruitment process, I and my supervisor agreed that I would acknowledge my position as a Clinical Psychology Doctoral student,

acting as researcher, on the recruitment materials in order to help participants understand who we were and what our intentions were. However, as potential participants were likely to present with risk (given their experiences of suicidal ideation) we considered that it would be important for me to hold the position of researcher carefully, without slipping into my role as a Trainee Clinical Psychologist. We agreed that this role differentiation was important, given that risk and complexity could not be managed at interview in the same ways that it might be within mental health services. At interview I noticed that whilst it was relatively easy to hold boundaries and protocols agreed around risk, it was more challenging for me to stay within a purely researcher role when discussing participants' experiences of, for example, pain, self-blame, guilt or feelings of inadequacy. As a mental health professional, and someone who is empathetic towards difficulties around mental health, I found it very hard to hear participants voice negative self-beliefs and not be able to offer alternative perspectives, challenge unhelpful thoughts or offer reassurance, as I might do within my clinical role. One of the ways in which I dealt with this discomfort was by reflecting on this experience with my research colleague. Together, we were able to acknowledge and reflect on the pain and discomfort of not being able to offer anything that felt clinically useful or meaningful. We managed these feelings by considering that some participants spoke about already having access to mental health support services and that, for those who had not, our debrief materials informed participants about different sources of support that they could access, should they wish to. Within this conversation, we considered participants' agency and right to choose. We also challenged our own ideas about not offering anything helpful by acknowledging that all of our participants reported that the experience of being interviewed had been positive, meaningful, or cathartic to them. Finally, we considered that whilst it was not appropriate to open up a space to challenge unhelpful thoughts, it was appropriate to offer interviewees reassurance that their thoughts or experiences were not, for example, "ridiculous"

and to find opportunities to convey our understanding and empathy. Having had these conversations, I began to allow myself to offer some more encouragement and reassurance during interviews. I spent time reflecting on what impact this reassurance-giving may have had on participants and on the information they might choose to share or not to share. I considered that in making my understanding and empathy clear, participants would not have to wonder or speculate about what I was thinking and thus they may be less likely to feel stigmatised or judged for the experiences that they spoke about. Thus, this process of validation may have allowed participants to feel more comfortable speaking about their experiences and may have assisted in the development of a trusting and positive rapport, two factors which have been acknowledged as important for both data collection and the maintenance of respect between participants and researchers (Guillemin & Heggen, 2009).

Another way in which my background as a trainee psychologist may have influenced the data collection process related to my clinical experience and my knowledge of clinical literature. As a clinician, I am familiar with psychodynamic theories about psychological defences and the importance of these defences in protecting people against psychological harm (Abbass, 2015; Freud, 1992). I am trained to think about when it may be clinically unhelpful to prompt someone for more information and when it may be therapeutically important to do so. During the interview process, I became aware that I was sometimes reluctant to ask some participants certain follow-up questions, if and when I noticed that they seemed to be intentionally avoiding discussions on a particular topic. Thus, my knowledge of psychodynamic defences and my understanding of their protective function influenced what questions I asked and which I did not, and thus what information was collected. However, whilst this cautiousness on my part may have resulted in less information being collected, at an ethical level, I believe that it was important for

me to ensure that participants did not feel obliged to have discussions that they did not wish to have. Indeed research guidelines and legislation highlight the importance of participants being able to withdraw their consent from a research activity at any time, with ease, and such guidelines consider that silence is not an indication of consent (*General Data Protection Regulation*, *2018*; British Psychological Society, 2014; Kamuya et al., 2015). In this study, if and when participants seemed reluctant to speak about a topic, they were reminded that they could say as little or as much as they liked. This affirmation of participants' rights may have also helped to build a trusting rapport with participants and helped them to feel more comfortable talking about difficult topics. Indeed, as aforementioned, all participants expressed valuing the interview experience at debrief and one participant specifically mentioned appreciating that whilst the interview had explored difficult topics, the process had not been experienced as overwhelming.

As someone who has never felt suicidal, I also wondered about how my lack of first-hand experience with such thoughts and feelings might impact on what I was curious about at interview and what I chose to ask follow-up questions about. Prior to conducting interviews, I considered that my lack of experience with suicidal feelings, my role as a researcher and my clinical experience (a role that involves being curious about others' perceptions and experiences) would help me to listen and be curious about what I heard; I anticipated learning about experiences that were very different from my own. However, throughout the interview process I found that I was able to relate to many of the difficult feelings and experiences discussed by participants, although these experiences were perhaps felt at a more severe level compared to my own experiences. I found that I connected with many of the discussions about being an undergraduate student and having to navigate academic demands, competition, relationships and identity. When reflecting on how these shared experiences may have impacted on my curiosity, I noticed that I was

sometimes less curious about ideas that I could readily relate to whereas I was somewhat more curious about experiences and ideas that I found more difficult to understand or connect with. Another factor which may have influenced the way in which I asked follow-up questions was my knowledge of a priori research. Whilst having conversations with participants at interview, I noticed that it was difficult not to interpret the experiences that they spoke about within the frameworks that were already established in the literature. Finally, I noticed that my curiosity and my attention were also been influenced by my desire to understand the increases in suicidal behaviour amongst students. During the interviews, I noticed that I was especially interested in factors that may explain recent rises in suicidal ideation, such as difficulties relating to financial pressures or the impact of social media- factors which are changing dramatically within society. Conducting joint interviews with another Clinical Psychology Doctoral student helped me to manage these biases in attention. I found that, whilst my colleague was asking participants questions for her own study, I was able to look over the interview notes that I had taken and identify areas that had not been fully explored or that were lacking in detail. As such, I was able to return to some of the less explored areas before ending the interview, thus helping to fill some of the gaps in my data.

Throughout the interview process, I noticed an adjustment in my focus. Prior to meeting with students, my sole reason for conducting the interviews before the launch of the survey was to identify any additional risk factors that may explain suicidal ideation amongst students. As such, my focus was on ensuring that the online survey was comprehensive. However, I found that during the interviews, I began to connect with the project at a more emotional level. In the process of joining participants to speak about their experiences, I noticed that I became invested in them and the explanations that they gave for suicidal ideation. I felt that their voices revealed something important about student suicide and thus I wanted to amplify

the narratives that were shared. However, I was also aware that this information reflected five people's experiences and that the reasons for feeling suicidal would vary considerably amongst the UK university student population. Thus, I was aware of a need to stay as objective as possible with regards to understanding student risk. The online survey was helpful in this respect. Whilst it allowed me to explore the experiences discussed by participants at interview further, it also revealed the variation amongst respondents in a statistical and systematic way and helped me to maintain some objectivity in this regard. Nonetheless, I considered the experiences shared at interview to be important. I reflected on how the rich and detailed stories of struggle described by participants increased my commitment and motivation to disseminating the findings of this project in a way that they would be meaningfully received and utilised. I noticed that this experience was also true of the qualitative feedback left by participants at the end of the online survey. Thus, whilst I consider the quantitative data collected in this study to be more reliable in its ability to provide information about the reasons for suicide amongst young UK university students, it is the very real and emotive accounts of participants' lived experiences that drive me to ensure that the findings of this study are heard.

4. Final thoughts

Although not without its challenges, conducting this project has been a positive experience, both for myself and, evidently, for those who took part in the study. At every step of this study, we have received positive feedback from others, whether this was people discussing the importance of this project with us during recruitment, whether it was positive feedback from interviewees or survey respondents or whether it was the thanks that we received (see Appendix V) for being able to play a part in the very practical step of raising money for a suicide charity. As a result of

this project, £670 was raised for the youth suicide prevention charity, Papyrus. This project has also been invaluable in my own development, both as a researcher and as a mental health professional. It has opened my eyes to a real need for a greater understanding of suicide amongst young people and has stimulated creative ideas about how integrated and accessible support for younger students could be achieved. The project has also helped me to accept the limitations of both research and clinical work, whilst motivating me to strive for the best imperfect outcomes.

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Appendices

Appendix A

Outline of Contributions to Joint Theses

This project was conducted as part of a joint thesis (see '*Experiences, beliefs and attitudes affecting mental health service access amongst suicidal university students*': Adams, 2020).

My partner and I were initially working on separate theses and thus I developed the research plan and first draft of some of the information sheets and recruitment documents for this study independently. My partner joined this project due to complications with her initial project. At the point that we formed a joint project, my partner adapted the existing study materials to include information about her part of the project. From this point onwards, we made further amendments together and also co-created new study documents (for example, survey pilot information sheets and consent forms). The ethics application was also completed together.

The distribution of interview/ focus group advertisements was conducted jointly. Interviews were also conducted jointly, although my partner was unable to attend two of the interviews due to family circumstances so I conducted two interviews independently. Interview transcription was divided between my partner and I. Analysis of the interview data was conducted separately, in accordance with our two independent studies.

The online survey was developed together as was the study website. Advertising for the online survey was also carried out jointly. Survey data was analysed separately and our projects were written up independently.

Appendix B

Semi-Structured Interview Schedule

What kind of circumstances or experiences might put university students at an increased risk of suicide?

Further Prompts

-Are there any risk factors which are specific to students?

-We've talked about some factors that might cause suicidal feelings when they are present. Are there any factors that might cause suicidal feelings because they are absent?

-Are there any factors or resources that might protect students against suicidal feelings?

-Why might these factors/ resources be successful in protecting students against suicide?

Appendix C

Demographics Table for Interview Participants

	Demographic Information
Age	19 - 23 years (M = 21.2, SE = 0.8)
Gender	Female: 80% (n = 4) Male: 20% (n = 1)
Student Status	UK Students: 60% (n = 3) EU Students: 40% (n = 40)
Ethnicity	White British: 40% (n = 2) White Other: 40% (n = 2) Asian: 20% (n = 1)
Sexual Orientation	Heterosexual: 60% (n = 3) Bisexual: 20% (n = 1) Prefer Not to Say: 20% (n = 1)

Appendix D

Interview Advertisement Flyer

UCL

Help us to understand the stressors associated with student suicide, and the help that is available, so that more effective support can be developed

What:	Discussion group about student life stressors, suicide, and available support
Who:	UCL university students who have experienced suicidal thoughts at some point during their studies
Compensation:	£10 Highstreet Voucher
Principal Investigator:	Dr Janet Feigenbaum
Researchers:	Larissa Barnett and [redacted]

To find out more, rip a slip and contact the researcher on the details below:

Appendix E

Interview Information Sheet

What are the factors contributing to suicide risk amongst university students and what might help?

Principal Investigator: Janet Feigenbaum
Researchers: Larissa Barnett and Helen Adams

Focus Group Study Information Sheet

You have been sent this study information sheet as you have expressed an interest in taking part in our research project. The project aims to understand the factors that increase the risk of suicide amongst university students in the UK, what services are currently available, and how more effective support can be developed. Participation in this study is entirely optional and there will be no consequences if you chose not to take part. Before making a decision about whether or not you would like to take part, **it is important that you read this information sheet carefully**. After reading this information sheet, please contact us by emailing [redacted] or [redacted] to let us know whether or not you are still interested in taking part and to ask any questions you might have. If you find the content of this information sheet at all distressing and you feel at risk, we would encourage you to make contact with UCL student mental health services by calling 020 7679 1487 or to contact the principle investigator, Dr. Janet Feigenbaum, ([redacted]). If you need help urgently, you should call 999.

What is this study about?

In recent years, concerns have been noted about the number of student suicides in the UK. This study is concerned with understanding more about what makes some students feel suicidal and what support is available for students. In particular, we would like to hear the voices of people who have considered or attempted suicide during their university studies. In doing so, we hope to identify ways to better support students and reduce thoughts of suicide.

Who can take part?

You are able to take part in this study if you;

- Are an undergraduate or postgraduate UCL student

- Have had thoughts of suicide or have made a suicide attempt or plan at any point during your university studies

Why should I take part?

Participation in this study will help us to understand the reasons that some students might feel suicidal and what help is currently available to them, in order to develop ways to support such students more effectively.

If you decide to take part in the focus group, you will receive an incentive of a £10 High Street or Amazon voucher as compensation for your time.

What will the study involve?

If you are happy to take part in this study, you will be invited to attend a focus group that will last approximately 60 minutes and will be facilitated by two Doctorate in Clinical Psychology researchers who are also Trainee Clinical Psychologists. The focus group will be made up of between 4 – 6 undergraduate and/or postgraduate UCL students, including yourself.

If you do decide to take part in this study, discussions that are had within the focus group will be recorded so that they can be typed up and analysed. Your name will not be detailed anywhere in the recording and once the discussions have been typed-up, recordings will be deleted. Your name will not be recorded anywhere in the written data. Written data and scanned copies of consent forms will be stored in a secure data system for 20 years. After this period, all records will be destroyed.

Please note, we cannot guarantee that a student you know will not also volunteer to take part in the focus group and recognise you. However, before the focus group begins, you will be asked to respect the confidentiality of other participants by not continuing discussions outside of the focus group with group members or people who did not attend.

During the focus group, you will be asked some questions about the difficulties that students face. The group will consider why some students may feel suicidal, what support services there are that you are aware of and what, if any, barriers exist to accessing support. You will not be required to speak in any detail about personal experiences that have led to suicidal thoughts; the group will talk broadly about reasons that students may feel suicidal. You are not required to answer any questions that you do not wish to.

How might taking part affect me?

During the focus group, you will be asked to discuss some sensitive topics, such as thoughts about why some students generally may feel suicidal and what previous experiences of support students have received. It is possible that you might find such conversations distressing. If you do feel distressed and feel that you need to stop taking part at any point during the group, one of the focus group leaders will be able to leave the room with you and assist with reducing or managing your distress. There will be no consequences for withdrawing participation and you would not be required to return to the group if you choose not to.

At the end of the focus group, we will have a debrief with the group and you will be given the opportunity to discuss anything that you found distressing. The details of several crisis services and some step-by-step self-help guidelines that can be used to manage distress are included in the debrief. You will also be given printed copies of this information to take away.

If any risks are identified at any point in this study, you will be encouraged to seek further support from the UCL student health services, if you are already open to this service. If you feel highly distressed, we will make contact on your behalf, with your knowledge. If risk is identified and you are not open to the UCL student health service, a potential referral will be discussed with you. Support will be given to manage risk and obtain ongoing support.

Giving informed consent

If you do decide to take part in this study, on the day of the focus group, you will be asked to sign a consent form; this is to make sure that you understand your rights. Even after you sign the consent form, you can withdraw your participation in the focus group at any time. However, please note, once you have taken part in the focus group, it will not be possible to withdraw your contributions to the discussions from the study as these will be inseparably intertwined with data of other participants on the recording. If you withdraw your participation during a focus group, again, it will not be possible to withdraw any contributions you have made to the study.

Local Data Protection Privacy Notice

The controller for this project will be University College London (UCL). The UCL Data Protection Officer oversees UCL activities that involve the processing of personal data; they can be contacted at data-protection@ucl.ac.uk

This 'local' privacy notice sets out the information that applies to this particular study. If you would like further information on how UCL uses participant information, have a look at our 'general' privacy notice by clicking the link below:

For our 'general' privacy notice, click here

The information that must be given to participants, according to data protection legislation (GDPR and DPA 2018), is provided across both this 'local' and the 'general' privacy notices.

In this study, the following information will be collected:

- Your name, phone number and email address (so that study information can be sent to you). This will be deleted once your participation in our study ends.
- Demographic information such as your age, gender and ethnicity. This information will be used in study write-up, to detail the group demographics of participants. Demographic information will be pseudonymised. It will be stored in a UCL data safehaven for 20 years, as is standard, and then deleted.
- You will be asked to sign a consent form on which you will detail your name and signature. This will be kept in a UCL data safehaven for 20 years, in a separate location to other anonymous focus group data, and will be deleted after this period.

The lawful basis that will be used to process your *personal data* are: 'Public task' for personal data and' Research purposes' for special category data. If you are concerned about how your personal data is being processed, or if you would like to contact us about your rights, please contact UCL in the first instance at data-protection@ucl.ac.uk.

Where can I find out about the results of the study?

A summary of the results of this study will be posted on our online website in autumn 2020. Any publications that come from this study will also be posted at this site.

Researcher contact details:
Larissa Barnett [redacted]

Principal investigator: Dr. Janet Feigenbaum, Associate Professor Clinical Psychology, UCL [redacted]

Appendix F

Interview Consent Form

What are the factors contributing to suicide risk amongst UK university students and what might help?

Study Consent Form

Please read each statement carefully and put your initials to indicate that you understand and agree. You will not be able to proceed to the study until you have initialled each statement.

	Please Initial
I confirm that I have read and understood the study information sheet	
I understand that my participation in this study is voluntary and that I am not obliged to give consent	
I understand that if I do not give consent to take part, there will be no consequences	
I understand that I can withdraw my consent to take part in a focus group at any time without having to give a reason	
I understand that once I have contributed information in a focus group, that contribution cannot be withdraw from the study as it is recorded with all other participants contributions. I understand that the contributions I make to this study will be included in the researcher's thesis and may be published in a scientific journal	
I understand that any data I give will be anonymised and that my confidentiality will be protected in any reports or publications that come from data collected in this study	
I understand that if I become unduly distressed during the study, the researchers may contact the UCL student health service on my behalf	
I agree to take part in this study	

Signature: Date:

Research Staff contact details

Appendix G

Interview Demographics Form

1. **Age:** _____

2. **Gender:**

   Male □ Female □ Prefer not to say □

   Other: (please state) _____

3. **Ethnicity:**
   Prefer not to say □

   White:

   English/Welsh/Scottish/Northern Irish/British □ Irish □

   Gypsy or Irish traveller □ Other (please state): _____

   Mixed/Multiple Ethnic Groups

   White and black Caribbean □ White and black African □

   Other (please state): _____

   Asian/ Asian British

   Indian □ Pakistani □ Bangladeshi □

   Chinese □ Other (please state): _____

   Black/ African/ Caribbean/ Black British

   African □ Caribbean □

   Other (Please state): _____

4. **Sexual orientation**

   Heterosexual □ Homosexual □ Bisexual □ Prefer not to say □ Other (please state) _____

5. Would you describe yourself as having a disability?

Yes □ No □ Prefer not to say □

6. Student status

UK student □ EU student □ Overseas student □

7. Degree level

Undergraduate student □ Postgraduate student □

Appendix H

Interview and Online Survey Debrief Resource

UCL

Self-Help Information and Further Support Contact Details

Please find below resources to help support yourself if you are feeling distressed.
Contact details for support services are on the last page.

Visualisation

This is a quick way of getting away from a situation without physically leaving.

- Imagine yourself walking to a door.
- Open the door and walk down the 3 steps, taking a deep breath for each of the steps.
- You walk into an environment where you feel relaxed and calm. This could be a familiar place, a happy memory, or somewhere in your dream.
    - **What can you see?**
    - **What can you hear?**
    - **What can you smell?**
    - **What can you touch?**

Spend a few minutes in this place, enjoying the feeling of relaxation.

When you feel ready, start to make your way back up the three steps, take a breath for each of the three steps. Make your way back through the door and back into the present.

Mindfulness - "Leaves on a Stream" Exercise

1. Sit in a comfortable position and either close your eyes or rest them gently on a fixed spot in the room.
2. Visualise yourself sitting beside a gently flowing stream with leaves floating along the surface of the water.
3. For the next few minutes, take each thought that enters your mind and place it on a leaf… let it float by. Do this with each thought – pleasurable, painful, or neutral. Even if you have joyous or enthusiastic thoughts, place them on a leaf and let them float by.
4. If your thoughts momentarily stop, continue to watch the stream. Sooner or later, your thoughts will start up again.
5. Allow the stream to flow at its own pace. Don't try to speed it up and rush your thoughts along. You're not trying to rush the leaves along or "get rid" of your thoughts. You are allowing them to come and go at their own pace.
6. If your mind says "This is dumb," "I'm bored," or "I'm not doing this right" place those thoughts on leaves, too, and let them pass.
7. If a leaf gets stuck, allow it to hang around until it's ready to float by. If the thought comes up again, watch it float by another time.
8. If a difficult or painful feeling arises, simply acknowledge it. Say to yourself, "I notice myself having a feeling of boredom/impatience/frustration." Place those thoughts on leaves and allow them float along.
9. From time to time, your thoughts may hook you and distract you from being fully present in this exercise. This is normal. As soon as you realize that you have become side-tracked, gently bring your attention back to the visualisation exercise.

Distraction Techniques

These are some ideas for helping people delay or avoid self-harm that you might wish to consider- they've been suggested by people who self-harm. Some ideas might seem ridiculous, but others might work. Different people find that different things help, and it isn't failure if you try something and it doesn't help. You will be able to add things which you have discovered.

Expressing feelings PHYSICALLY

- Scream as loud as you can
- Hit a cushion/punch bag/throw a cushion against a wall
- Kick a football against a wall
- **Squeeze** a stress ball
- Play loud music and dance energetically- be as wild as you like
- Spend some ***energy***- go for a walk/swim/go to gym/ride a bike/go running.
- Tear up something into tiny pieces
- Write down your feelings, screw up the paper and throw it into a bin
- Clench and then relax all of your muscles

Trying to work out how you are feeling….

- Ask yourself 'Do I feel ANGRY'? 'Do I feel anxious'? 'What about?'
- **Write a letter** to someone you're angry with (hurt by etc.) saying how you feel (no need to send it).
- Write a list of your **achievements**
- Write a letter to yourself saying 'I love you because……'
- **Make a list** of things you're thankful for
- Make a wish list

Talking about it…

- Talk to a **friend**
- Call the Samaritans or other helpline
- Allow yourself to **cry** (if you can)

Using your Creativity

- Draw / paint / collage/ paper mâché / finger paint / sculpt in clay- to express what you want to do or what you are feeling
- Write a poem / **story** / song / joke / autobiography / parody / musical
- Write a **diary** / journal / read old diaries (unless there might be triggers)
- Write an **online journal**
- **Scribble** a word again and again to say how you're feeling e.g. 'lonely', 'angry'
- Deface a magazine (preferably your own)
- Write a **message** on an online support group
- Take some **photos**
- Play an **instrument** / Sing to music as LOUD as you can
- Put on **music** which expresses how you are feeling
- Write out the **soundtrack** to your life if it were a film
- **Imagine a colour** which expresses your feelings then change it in your mind to another colour
- Make a **memory box** / scrapbook
- Write an **alternative ending** to a story
- Watch a foreign language channel and make up your own interpretations
- **Create** your own cartoon characters / legends
- Create a SECRET CODE

Self-Soothe with the Five Senses

Things You See

Make a part of your room look just the way you want it to. Look at nature around you. Watch stars, the moon, sunrise or sunset. Look at pictures or a poster that you like. Take a walk in a park or in your neighbourhood. Really look at and notice what is nice.

What You Hear

Listen to relaxing, soothing, or energetic music. Pay attention to the sounds of nature (waves, birds, rain, and leaves rustling). Sing your favourite songs. Hum a soothing tune. Learn to play an instrument. Call a friend. Listen to your cat purr.

Odours You Smell

Use your favourite aftershave, cologne, or perfume. Put potpourri in a bowl in your room. Boil cinnamon sticks. Bake cookies, cake or bread. Smell roses. Be mindful of the smells of nature; try smelling a pinecone.

Foods You Taste

Have a good meal. Have a favourite soothing drink such as herbal tea or hot chocolate. Treat yourself to dessert. Sample ice cream flavours. Chew your favourite gum or sweet. Really taste the food you eat. Eat one thing mindfully.

Things You Touch

Pet your dog or cat. Take a bubble bath. Put clean sheets on the bed. Soak your feet. Put lotion on. Put a cold compress on your forehead. Sink into a really comfortable chair in your home. Brush your hair for a long time. Hug someone. Hold a pinecone. Hold a basketball, football, or baseball.

Contacts for further support

If you feel you might need some further support, you might find it helpful to contact your **university wellbeing team**. Similarly, if you are currently under the care of a **disability service** or a **local mental health team**, you might find it helpful to contact your therapist/worker. Alternatively, you may wish to contact **your GP** if your distress is ongoing after participating in the study.

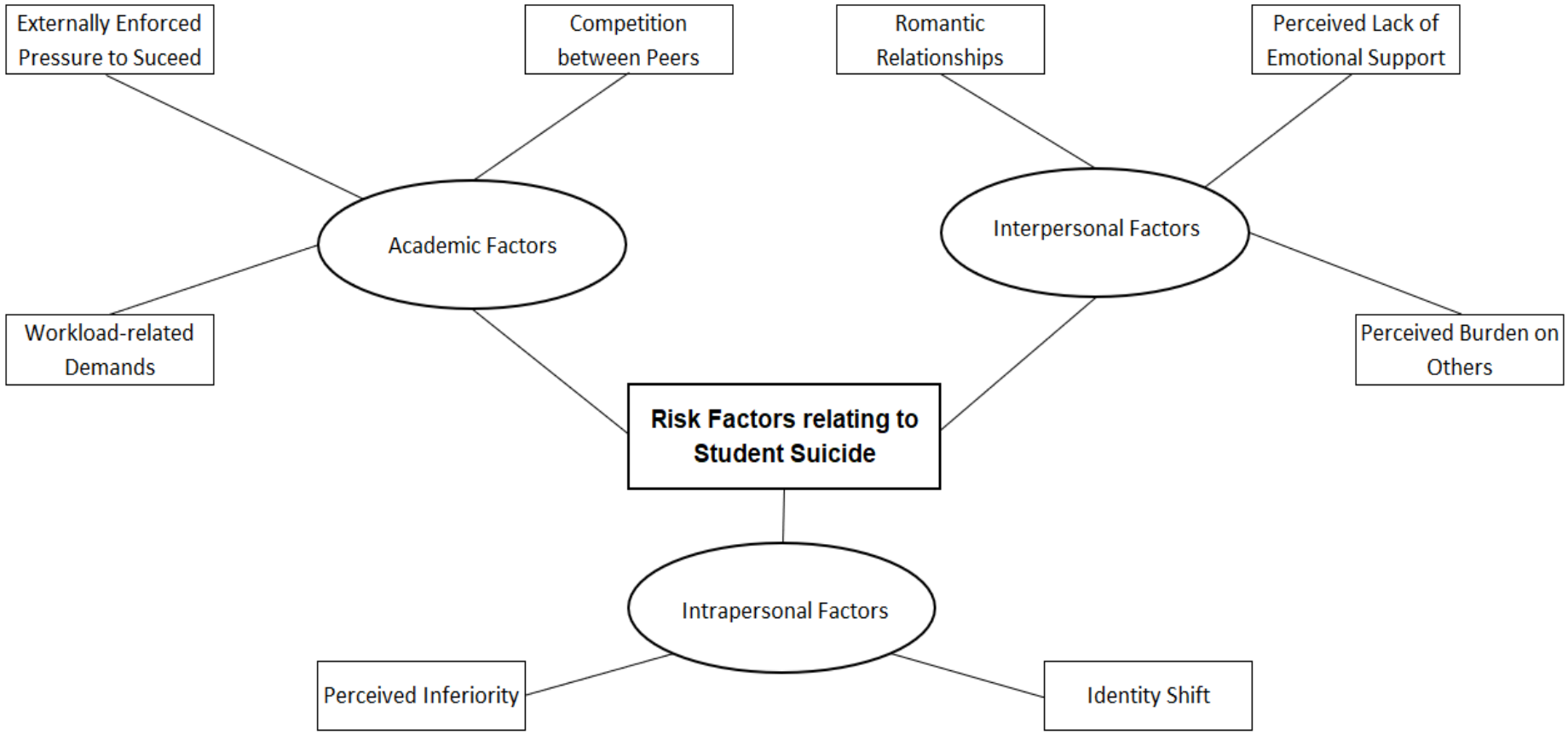
If you would like to speak to someone anonymously about the way you feel, you can call the **Samaritans** on **08457 90 90 90** or visit their website at **http://www.samaritans.org**. They provide a confidential listening service. You may also be able to access a confidential listening service provided by your university.

If you are aged under 35 and having thoughts of suicide, or are concerned for a young person who might be, you can contact **HOPELINE UK** for confidential support and practical advice. Call 0800 068 4141, text 07860039967, or email pat@papyrus-uk.org. HOPELINE's opening hours are 9am – 10pm weekdays, 2pm – 10pm weekends and bank holidays.

If you need help immediately and are in an emergency, you can always call the emergency services on **999** or go to **A&E**.

Appendix I

Thematic Map of Themes Identified at Interview



Appendix J

Supporting Quotes for Themes Identified at Interview- Raw Data

Externally enforced pressure to succeed

“The environment places so much emphasis just on [achieving], then if you don't really perform at that you feel like you're not good enough in the environment”. (pp2)

“After I finished my first year, I got amazing grades……..so I told them but they’re used to grade in the system of up to [number] so the feedback um… my grandfather thought that I failed so he didn't respond to it and when I hear it from them I feel like, I could have done better, I mean I did only get a [score]… it kind of makes you feel bad for not putting more effort… for not trying better”. (pp3)

“There’s a real, I don’t know, unspoken tension between the seminar leads, you can tell by their body language, their expressions, if your point is not really… a bit off or you can tell by even just hearing people type things down”. (pp4)

“The education system is, well it’s based on meritocracy, so… believing that the people who work the hardest will get the best rewards. There’s also ummm, I suppose a cultural understanding where, you know, you want to succeed, and therefore impress your families, and your friends, and your support system around you… but that often has… it often links very well to… ummm… to the system of meritocracy in school and so it can start to feel like everything around you is saying that you’ve got to be the best” (pp4)

“There is a very big link between academic success and ummm… I suppose reputation’s not the right word ummm… you… and I don’t know making your family proud or… your friends proud”. (pp4)

“There’s often a lot of pressure on children to be the first generation to go to university. Ummm… and before they do go to university, I think there is a pressure, which can often be very verbal, or a little bit more hidden on the academic success on the student, so having a child go to university is a way of the parent knowing in some way that they have succeeded in parenting”. (pp4)

“I think [parent’s financial support] places even more pressure on you to do well because not only have they, you know, got that emotional expectation, they've also got that financial you know reasoning... I mean they haven't said as much but I personally feel it”. (pp5)

“’In tutorials that you get it's like brownie points for putting people down by like, contradicting other people's points …….. It is a very umm... very competitive course. In terms of everything, really…… When you're under that sort of pressure and you feel like you can't meet expectations, I mean, I've already been yelled at by the head of my course... a few times! Ummm... I... I know she means well but it's just... like doling on more pressure to... you have to do... fit in this certain box... almost like... you know... you... yeah... it is just like these students are really good and these ones are not, and... it's quite demoralising”. (pp5)

Workload-related demands

“I was going off on placements and stuff, I had four shifts for like the following four days after we’d broken up and I was completely in bits but I just had to power on through 3 hours of sleep and go on autopilot and do it and I suppose, I wish maybe there was a little bit of flexibility with the uni that would allow students some time off for difficult mental health days“. (pp1)

“I think if the academic culture would be a bit more relaxed around failure and around deadlines because I saw that in … in PHDs are like, ‘Oh, we’re a bit late with the deadline, we’ll have another date, it’s okay’, and then for undergrads, ‘Oh your late? Ha. Bad news’ which I understand is… it’s good to create that sort of self-discipline but I feel like… I actually don't know how to go, like, go around it, ‘cause it's really pressuring”. (pp2)

“I was feeling that way because I was really stressed but because I was really stressed ‘cause I had a lot of work to do I said I can't afford taking time off to do this because I will lose work time, um, yeah I think that the deadline stress…….I think we're feeling… I'm talking about the community here, peak suicidal with the stress, like it’s really correlated, um, but then, again when we’re so stressed we don't feel like we have the luxury to take the time off to care for ourselves because then we're going to fail which is going to make us feel sh*ttier so we don't want to fail”. (pp2)

“I don’t know, an exam… it’s really hard to let go of one exam and this is a, a… I’ll give you a comparison. Back in my home country, you, they’re allowed to fail exams and they can retake the exams as many times as possible. Obviously the academic performance is much lower but the pressure is much lower as well and the risk of suicide isn’t as present whereas here if you fail an exam you can only take it once and it's capped at the pass mark ‘cause they really want to force people to pass it the first time but what happens when you have all of your exams in a week or you have two examines in a day or you have like Monday, Tuesday ,Thursday? …….. even if you study ahead of time and you're perfect, perfectly organised, it’s still really hard to go through that many exams in the short period, like you have no time to decompress whatsoever, um, which again peak suicidal occurs in that period but it's also the period when you really can't afford to take time off ‘cause you just don't want to fail”. (pp2)

“Grading usually [puts university students at an increased risk of suicide]. I remember my first grade paper which was …so in University here it's until 70, you know the highest mark, and where I come from it's up to [number], so seeing the initial shock I got a [score], I remember feeling really depressed and I couldn't shake the feeling that…… even though first essay, it's really good here”. (pp3)

“Deadlines sometimes [can increase the risk of student suicide] because you feel like you won’t reach the timelines. Sometimes the timelines are really little, like how it … short in comparison to others so for seminars that you have two essays sometimes you have only a week or two to finish an entire essay and the stress can affect you, especially if you want to have social life as well so it can make you feel, um, like you can’t achieve it and that you don't deserve it”. (pp3)

“What if I won't make my personal goal like for me it was, what if I won't make the grades that I wanted and then it came to factor the first essay which crashed me”. (pp3)

“This year I have a lot of workload so I don't really have time for societies so, like, my friend circle kind of shrunk which is kind of sad, to be honest”. (pp3)

“You can’t talk to anyone because your friends aren’t doing bad and the professor is like, well that's the deadline, so you kind of feel stuck in not being able to do anything and just try… I guess”. (pp3)

“It is a big leap isn't it from being in the classroom and having your teacher sort of encouraging you to get your work done and then coming here and just like "You're on you own!" (laughs). (pp5)

“on the first day it's like... they were like, I don't know what the plan was but they were like ‘You're all going to have to do [set hours of work], it's gonna be hell from now until Christmas’. And I had... two panic attacks in the first day. Yeah, and I... I don't know if she was trying to brace us all for the, you know... but that threw me completely. Ummm... yeah, yeah. Just like... I was just like "Why would you tell us that? What have I got myself into?" Yeah... basically she said "You're gonna have a terrible time from now until Christmas... but it will get better after that" and I thought "How am I going to survive until Christmas?... that's three months!" …… that wasn't like "Come and talk to us if you've got any... trouble" it was just basically like, matter-of-fact... that's gonna happen, deal with it. (laugh) "You're all gonna have to go through it, so there's no point, you know" and I just literally... cried. I was just like "what?". The first few weeks were just me going "I haven't done my hours of work... oh no. Ahhhhhh”. (pp5)

Competition between peers

“University on the whole is a very competitive area, you always want to achieve more so especially with depression and low self esteem it's not necessarily how you feel because of something but it also has a lot about how society perceives you, so you always think about others and you want to be the best, you don't want to suddenly admit it that you need help”. (pp3)

“Every single person in that room has often felt like the most intelligent person in the room. And all of a sudden, nobody is the most intelligent person in the room, so there’s a lot of, everyone’s trying their hardest to place themselves as high as they can, which is a natural thought, but it can often leave people feeling a little bit lost in the middle. Yeah. There’s a very real risk of marginalisation academically in university”. (pp4)

“It’s a concept of ‘winner takes all’ or ‘last man standing’ kind of thing where you’re told to… errr… to compete against all the other students, to see people around you as competitors and then to, to beat them in exams. Ummm… and I think there is a change there also because ummmm the university system goes away from pretty much just exams at A-Level to assessments throughout the year, and coursework umm things like that, where the concept of competition is kind of taken away, where it’s kind of more an individual thing. Ummm… and I think at, well I suppose especially in seminars, there is still a competition, but there is also still a hidden sense of… you want to be told to cooperate with these students because, you know, we are all equally intelligent, equally academic, equally motivated. Ummm… but there’s still, because it’s been sort of… drilled into us, this idea of, you know,

wanting to out-compete anyone else. It's hard… it's hard to say well, let's not compete, let's cooperate and you know, let's work together and that can also… yeah there's a lot of things unspoken I think… in… in this kind of, very intelligent atmosphere". (pp4)

"It's like... quite a pressured environment. Especially the subject as well, they're all competitive because they're all competing against each other to get... [subject] things". (pp5)

"Here, it feels like ummm... cause everybody, you know, we see each other on a daily basis and ummmm a lot of them want the same thing, they want like [specific] contracts. And even though I don't want anything close to that, I still feel like... the intensity of the atmosphere and.. and.. the [subject] society has competitions every single night. Competitions... or... it's... I don't know what the official name is but it's just... like brown-nosing... ummm... like the big companies who come and visit. Networking! That's the word. But it's... I dunno, everyone's just in ties and suits……. But it's not like we're all sharing our struggle together, it's more like "Im gonna... I'm better than you" and that, that's quite like why I have not made any friends on my course (pp5)

Perceived lack of emotional support

"You've sort of gone from this environment of… again, I'm a child. I'm being looked after by parental caregivers or guardians and I'm now suddenly in a flat with people my age or near enough, in the same sort of boat and we're all trying to fend for ourselves and I'm not really necessarily talking much about the practical things like laundry and cooking……. I mean more kind of emotionally… that like disjointedness from home and uni". (pp1)

"I keep coming back to the whole like parent-child versus adult in a world where no-ones, yeah it is, it's a loss of like, guidance". (pp1)

"I've got to mingle with all these new people, I haven't got anyone to look after me, I'm on my own … it was very intense". (pp1)

"I was away from home, away from my network, group of friends I'd had my whole childhood and from my, y'know, mum and other family members that might have, like, spotted signs [of distress] or looked out for things". (pp1)

"I felt very much isolated physically because I'm living away from home and although I've got friends at university, they're kind of in a similar boat to me so perhaps they're not able to kind of… they're not able to be a parent, put it that way and there's only, y'know, a handful of people in your life that can do that for you if you're lucky, and that would be like my mum and my grandparents and they just weren't there to see [distress] so, yeah it was… unfortunately I was just a bit isolated". (pp1)

"No one would have spotted anything I don't think, without me… without really living in very close proximity all the time. I think a parent would've done, because they're kind of more invested maybe, emotionally…… at the time when I wasn't really ready to acknowledge it as toxic or bad for me or really, yeah, not good for my mental health, they, y'know, also weren't able to … I don't want to say take the initiative 'cause that implies that they knew it was happening and didn't do anything,

I just don't think it was visible in the way that it would be to someone who was much closer, like a parent, put it that way". (pp1)

"I would've liked more intrusiveness from staff (laughs). Like, I wouldn't have minded, say, if there an allocated person, in an ideal world, that would come and knock on my door every, like, week and just sort of say, how are you doing?". (pp1)

"Having someone allocated to just come and spend time with students, maybe more of an adult figure. I know I really needed that, like, sorely. I needed that, like, intrusive support, that my friends weren't able to give because they were too young as well. Erm, and yeah somebody who is genuinely kind of invested in me, I suppose, would've been nice". (pp1)

"At the very heart of it, that was what was most painful, I think, throughout the undergrad experience and going though that and end up feeling, y'know, I wanted to kill myself. It was this sense a really powerful sense that I'm completely alone in this and no one can understand and everyone's really busy and they don't have time for me and I just need to keep going". (pp1)

"I'd never had such sort of visceral, like, hyper-focused 'I'm going to do it' without any sort of, it was just such, like, all encompassing misery and, like, alienation and isolation that I very nearly found myself kinda going …….. had I felt less alone in it I don't think I would have gone there, mentally, it was because I felt alone". (pp1)

"My experience of being suicidal was I had a traumatic experience at uni and because I wasn't at home with, like the love and support I had been accustomed to in my childhood, I was left to fend for myself. It was my first experience and it was just really awful and there was no one there to buffer it". (pp1)

"The social interaction might be positive but if they feel like they can't communicate when… so if they're having a crisis moment and all of their friends have been nice to them but they feel like their friends cannot understand what they're going through, that they would judge the fact that they are being suicidal or that they would say oh you have no reason to be suicidal, look at what you've achieved, like, they try to give a positive pep talk but we're not …that's not the issue……. but the thing is that for some reason I've seen that a lot of us during uni would rather go to friends but we feel like we can't really go to friends". (pp2)

"If you're isolated, [difficult thoughts are] just gonna resonate harder in your mind and they're gonna be much harder to deal with". (pp2)

"Friendships being absent, like if you're completely isolated that's definitely going to get… increase your risk… um… I think for… so being suicidal and having a day where you don't do anything and you're in your own room, for some people that can be useful but for some other people not going out and not being able to interact with the world just to briefly forget about the things can increase the risk". (pp2)

"[Not talking] kind of suffocates you and you feel lonely. You know that feeling that you're surrounded by people but you're still alone, that's pretty much that, like you're looking at the world as surrounded by glass that separates you and others. You feel like you… they don't understand you, you can't talk to them really and if you'll try they probably won't understand or they'll dish it out like it's nothing, um, so it's kind of hard". (pp3)

“That gets you like to be also scared about how other people would react, so it actually amplifies the feeling of not being the same as everyone else and it kind of makes you more lonely”. (pp3)

“I remember going to my halls the first night and I stepped into the room and I just cried, so hard. I was like, why am I doing that to myself? I'm alone, I still don’t have friends, I’m without my family and that was actually one of my lowest points that are just etched in my mind, that I just sat on my bed in my empty room and I just cried so hard because there isn't anything much that prepares you for this ……. they don't really talk about the fact that you're suddenly alone”. (pp3)

“When I came to uni I kind of lost my support net which was my family, I’m hours away from them and we were a very close family so the feeling of ‘alone’, that you don’t know anybody, that you just can’t pick up the phone or text somebody and they will be there for you …… So it's the whole, how am I gonna not be alone? How am I going to find my safety net away from the safety net that I know?”. (pp3)

“You feel like there is no safety net at all, that you're just standing and there is nothing behind you, nothing in front of you and you just have to find a way to find your place and it's like a blank sheet ‘cause it's not like moving from middle school to high school or where you're like, with your family and you… or you moved to a different place but you move with your family usually and usually you’re just moving away alone” (pp3)

“….The people that you trust, that you know will not abandon you and what if I won't find it here? What if none of those people have the same things that I love? What if I can’t talk to them? What if we're not taking the same courses? What if they think that i'm not a good person? What if they wouldn't want to be my friend? So the safety net is important because you feel like you can talk to them and they won't judge you or they will find a way to make you better again in a more emotional way. They'll know what to do when you're sad or even if they won't know, they'll still be there for you, so you suddenly feel insecure because you don't have it”. (pp3)

“I think… being away from home [puts university students at an increased risk of suicide]. Sometimes it's the first time and... especially international students... and also... I dunno... just losing your support network. So, being away from family and friends”... (pp5)

“It's... finding people you relate with but then that means going through everybody else as well, it's quite emotionally and physically exhausting. In the meantime you're still a bit lonely... and isolated. Yeah”. (pp5)

“There's not much support I would say……. there's not much guidance and... all that sort of thing. I mean there is, if you wanna ask a (subject) question but in terms of... you know, not going crazy …….. lack of guidance... you're sort of... in the desert just like "What am I doing?" and that itself is quite... anxiety provoking and just... a real downer”. (pp5)

“Stop threatening them with the fitness to study policy (laughs) ummm... cause that was literally the first thing... and... I know... I don't think (the university) catered for this sort of thing. And literally one of the first things I had said to me was like "this is not a hospital"... like "I know that, thank you for your very condescending..." but umm... I still think that they should try more” (pp5)

“I wish they'd be a bit more patient... with that, because basically it's like "oh no, you're having a crisis... get out" (laugh) or call the nurse, you won't be able to keep up with the work" or …….it just seems like... you're a problem”. (pp5)

Perceived burden to others

“A lot of the reason, um, why people don't speak up, not just your judgment or whatever I said before, it's also the feeling like they’re a burden if they do so, and don’t wanna, they don’t want to ruin the other person’s day or they don’t want to load them with their negativity or they feel like they talk too much about it and they can't talk about it anymore and, um, when they start feeling like a burden that reinforces the suicidal thoughts because they think ‘Oh, they would be better off without me because they wouldn't have to deal with me so it's better for everyone if I just take my own life’”. (pp2)

“My mum's financial status is not the best ……. my constant thought all the time is she's paying and they’re paying so much money……. I can't disappoint her as well…….. she doesn't earn enough during the one or 2 or 3 months then she actually needs to pay it back all the year long and I'm aware of that because, again, I'm the one who's studying and I'm the one who's going with her and she transferred the money to my bank so I'm aware of that and in a way that makes me also feel really bad that they have to sacrifice so much for me so in a way I want to make them really proud and if I get depressed or don't make everything as I plan, I feel like I am not only letting down myself but I'm letting down other people”. (pp3)

“You don’t wanna add to the burden of these systems that are trying to cope with literal thousands of students who may need, umm, support……..… I think when I was in those systems, I felt, well, a strange feeling of feeling bad about having to need these systems because these people are working under such pressure and such stress to cope with this massive group of people that all needed help…… It’s very easy to say, ‘well if I just keep it to myself, I won’t burden anyone else’”. (pp4)

“My family aren't well off and... this is eating into our savings and my own personal savings. My [parent] got that fund obviously but... he could've used that for something else, you know. Ummm... so its quite stressful, it takes a big toll…….. I don't know why, but I feel guilty….. there's not many nice things in the house, but... they've saved thousands of pounds for my education, and I just feel a bit like... they shouldn't have to do that. They shouldn't have had to do that”. (pp5)

“It's a lot of money. A lot of money. Um... but yeah... there's a lot of guilt around that, that they could have spent it on themselves, do something nice”. (pp5)

Romantic Relationships

“Another tangent I’d definitely want to have on record is relationships, I think at that kind of age are really pivotal, not only with friendships but also with like romantic partners with some people and for me, it was like my first ever experience of

anything romantic … to kind of have that away from home, it… yeah it can be quite, it … that's also a risk factor" (pp1)

"I hadn't had any experiences like romantically, sexually at all erm prior to going to university and my partner….. it was just a really, really intimate environment……. mornings, evenings, he's always there…… but unfortunately it did turn out to be quite a sort of toxic, erm, relationship". (pp1)

"It was probably quite, it think you could definitely define it as emotionally abusive and at points a little bit like physically……. so yeah that was quite traumatic I suppose…….. it just totally annihilated me emotionally". (pp1)

"I was just a bit isolated, just with him, and that kind of gave him power I suppose to… and, and I don't want to paint him out to be vindictive or anything, I think a lot of it is, he was young too and perhaps part of him didn't know what he was doing, like the magnitude of it, but yeah it was definitely really, really bad for my mental health. It was actually one of the first times I've really, like myself felt quite suicidal". (pp1)

"There can also be negatives especially in romantic relationships if you feel like your partner… there's obviously that element of co-dependency and vulnerability in a relationship and if you feel like your partner isn't understanding you or isn't willing to listen or is dismissing what you're feeling like 'Oh, you bug me about this suicidal thing for so many times, can you just get over yourself and understand that you have no reason to feel this way 'cause look, you're in [university], you're beautiful, you're smart, there's no reason to be like this', um, that can make it much worse…… it's hard to know if someone is suicidal in the first place but I think it's even harder to know if someone is suicidal and is in toxic relationship because the person that they're dating can put them.. can really heighten their risk of actually committing suicide". (pp2)

"The dream of University is finally find a cute boyfriend and start dating with him and maybe you'll find your one and you see some other happy couple and you're 'I don't have that'. There is a big perception, like, the most Googled thing that I, like for students, is like 'am I the only virgin' whose going to go to university so it also plays a big role of, why am I wrong, like, what's wrong with me that I don't… that I don't get a boyfriend? That I don't get to do the same romantic stuff that other people have". (pp3)

Perceived Inferiority

"We can have the impression that everyone did better than me anyway and, errr, feel really stupid and incompetent we're like 'Oh look at me, I'm surrounded by all these people, they finished uni, they have a dissertation published, they go to Oxbridge and they do all these socially valued things'". (pp2)

"We only see the, the achievements of other people so we're like 'oh my flatmate got her dissertation published and my other flatmate is going to Oxbridge and what am I doing?' or 'oh, they graduated with firsts'……. and they're all doing really well and you ask yourself, well what's wrong with me? Why can I not do as well? Why am I getting shittier grades, oh I shouldn't… and then you also kind of beat

yourself up like, why am I using my mental health as an excuse to not work hard enough, I feel like I'm making this up in my head and that it's not real". (pp2)

"Maybe if you're being inadequate or not being smart enough for environment…….. There's definitely a lot of toxic comparison, that's always the first thing that comes to my mind. The toxic comparison of, look at all the other people that are doing well around me why am I not confident enough to do the same, um, and even…. it can come from people that are pretty well achieving. It seems like it's not, oh they're actually having, like, I don't know they're borderline passing university, they're getting 2.1s but they still feel like, Oh if I get a 2.1 but everyone else gets a 1st then I must be incompetent…….. whereas if they get a 2.1 but everyone else is failing their like, oh I'm doing great, which is fair enough, like, it's the relative comparison". (pp2)

"If we know that person got the first once, we will assume that they always get a 1st and if we don't we're like 'oh look at them, they're so much better, why can I not be at the same level?'". (pp2)

"Um, I think we draw our self-worth a lot from our, um, from the environment, from how we fit with the environment and if we don't fully fail… if we don't fully perform in the environment we have that idea that, oh, I'm not good enough and therefore I'm a failure and therefore I'm worthless. That sort of like reduced thinking, um, yeah". (pp2)

"It's a thing about like… at least how I feel when I get depressed, I tend to compare myself to others like how they are managing the same problem so obviously we don't talk about it because I feel kind of embarrassed to talk about it to my roommate or my friends but when I see them doing great I feel like something's wrong with me and that hurts myself… my confidence". (pp3)

"Again, you have the dream.. the, the perception of a student and you're like, well they must be the students like I think that students are supposed to be like, they got it all together, they have friends, they're great and I mean what about me?". (pp3)

"I think that imposter syndrome is a very big part of that as well, feeling, I've felt myself despite having gotten into [university], ummm being surrounded by people who also got into [university] for their academic confidence and intelligence and feeling a little bit like I don't think I belong here". (pp4)

"In seminars especially where either you feel that you can't get a word in edgeways because everyone's bristling with knowledge". (pp4)

"Feeling as if everyone else there has already understood what is required but also not wanting to ask what's required because that makes you look as if you don't know what's required… so it's a very anxious thought to think that everyone else knows what they're doing, but I don't know I'm doing, but I don't wanna ask what everyone's doing because then everyone knows". (pp4)

"It can be a very persuasive illusion if you look around and even through people's appearances, looking quite put together, bringing all of the stuff they need to lectures, and even people who yeah seem that they've got it together generally, you know, people you see exercising and…… it's a very easy illusion to believe that everyone is doing better than you are…….. it's very isolating". (pp4)

“And academic pressure... I never felt academic pressure when I was at [type of] university. But here... I'm just like, comparing myself constantly to the other students because they all got, like A*s and As and whatever, and I'm just like "I have no idea what you're talking about”. (pp5)

Identity shift

“I think I then had to kind of go through the identity crisis of ‘okay, I thought I was a strong-minded person, I … I’ve never needed to rely on like, I’ve never sought out dating for example…….. and suddenly I go from that sort of independent spirit to having it kinda crushed at uni with that … the boy I was dating and I just remember that … that caused a kind of shift in… ‘cause it… I felt like a victim…….. and that kind of led me down a path of a lot of soul searching in a way I suppose, thinking why did I do this and like I thought I was, I thought I didn’t need a partner and I thought I was really strong-minded and strong-willed and motivated and now I’m just kind of a mess ……so that was yeah, that was yeah…” (pp1)

“I kind of went from having this identity, I suppose, of being a bit geeky, a bit of a loner but like, y’know, try hard at school to suddenly, I’m in this flat with people that are far more geekier (laughs) and, y’know, far cleverer than me as well and that was, yeah, a definite shock to the self-esteem or the ego or whatever”. (pp1)

“I had this identity, I still do, of being quite weird or like… ‘cause I’ve had bouts of mental illness, as has everyone, and it’s yeah, I’m quite an introvert and I’m a bit … I’ve always felt a little bit, like, unique … not in any kind of good way necessarily, like it could be bad as well, it was…. I’d always felt very much like an outsider …….. and I’d come to university with this identity of I’m so weird, I have to fit in…… and actually the flatmates that I had were all just… they were far weirder than I was which was… it was great but equally it was kind of, yeah, it was a shock to the system…… it was sort of a realisation that you’re not that special, you’re not that weird”. (pp1)

“I tried hard and I was very focused on uni but in a way that my friends just weren’t and so I thought I was special in that regard, you know…… very rarely were people that hyper-focused on what they were gonna do, what uni they were going to go to, what course they wanted to do, what they wanted to do with the profession, erm, and then I come to university and it’s just I’m surrounded by people who are just so motivated and so clever and so unusual like it… they’re whole life they’ve dedicated to developing these really niche hobbies like … and I was in awe of it and I suppose, yeah, I did feel a little bit .. okay on one hand you’re no special or you’ve lost your identity, you’re no longer smart because these people are just so much smarter than you”. (pp1)

“There are [number] people I think at [university] ……. and coming from a sixth form …..it was quite a big jump ….. you walk into the lecture hall and yeah, every single person there is doing the same thing, and you’re told all the way through education that you should strive to be the best, get the highest marks, be the person that gets the top grades ……... All of these people have succeeded in some way to get there, and then, ummm, well it’s just intimidating…….. you feel that sense of, I don’t know I felt kind of disillusion… disillusionment, thinking you know, it was first me questioning, you know, how do I know that my notes are better than

anyone else's, and then an acceptance that my notes aren't better than anyone else's. Ummmm… so, yeah you do feel sort of… lost in this kind of sea of students at times". (pp4)

"I was a [job] within my local community... I worked with ….my closest friend ummm and….. I lived [location] with my family... it's just like a... feeling of you know, belonging, and knowing where you stand as well. So... I suppose when you like... take all that away its... it's... yeah. (Laughs) It's quite difficult". (pp5)

"I…….suppose when you sort of... don't know who you are, you have less reason to be around (laugh)... you forget... you're just sort of like, a shell. And you don't really... it's just a sense of confusion and loss... and it's... like a mini-bereavement... how do you cope with that I suppose? It's... how do you cope with the loss of yourself and the loss of your support network and... and... if you haven't already got the coping skills to sort of... or the safety net... then its much easier, much easier to slide into crisis". (pp5)

"I've been set in the way I've been now... I know I'm part of my family, I know who my friends are, I know... I knew my routine and my job... and never leaving that area. And then you come out here and everyone... it's... yeah it does feel like you've lost something..…….. it sort of, sort of like, wears you down. It's just like... like they're all like protective things that make you... who you are and... keep you grounded. And... you sort of know what you're doing with life. And then all that's taken away and it's just like no idea what anything is... nothing means anything any more". (pp5)

Appendix K

Demographics Table for Online Survey Respondents (n = 355)

	Study Sample Demographics	UK Higher Education Student Demographics (HESA, 2018-2019)
Age	17 - 29 years (M = 20.8, SE = 0.14) -	17-29 years (80%) 30+ years (20%)
Gender	Female: 83.1% (n = 295) Male: 14.6% (n = 52) Transgender/ Other: 2% (n = 7) Prefer not to say: 0.3% (n = 1)	Female 57% Male 43% Other 0%
Level of Study	Undergraduate: 82.5% (n = 293) Postgraduate: 17.5% (n = 62)	Undergraduate 75% Postgraduate 25%
Student Status	UK students: 83.4% (n = 296) EU students: 10.7% (n = 38) Overseas students: 5.9% (n = 21)	UK student 80% EU Student 6% International Student 14%
Ethnicity	White British/Northern Irish: 71.8% (n = 255) White Other: 11.3% (n = 40) Mixed Ethnicities: 3.6% (n = 13) Black African/Caribbean/British: 2% (n = 7) Asian/Asian British: 9.9% (n = 35) Arab: 0.6% (n = 2) Prefer not to say: 0.8% (n = 3)	White 76% Mixed Ethnic Groups 4% Black/African/Caribbean/British 7% Asian/Asian British 11% Other 2%
Sexuality	Heterosexual: 51.8% (n = 184) Homosexual: 7.6% (n = 27) Bisexual: 27.3% (n = 97) Other: 4.2% (n = 15) Unsure: 7% (n = 25) Prefer not to say: 2% (n = 7)	Heterosexual 69% Homosexual 2% Bisexual 3% Other 1% 25.1% did not answer
Disability	Yes: 14.6% (n = 52) No: 83.4% (n = 296) Prefer not to say: 2% (n = 7)	Yes: 14% No: 86%

Note. HESA = Higher Education Statistics Agency; Disability = Physical or Learning Disability

Appendix L

Digital Recruitment Flyer for Online Survey

Research Opportunity

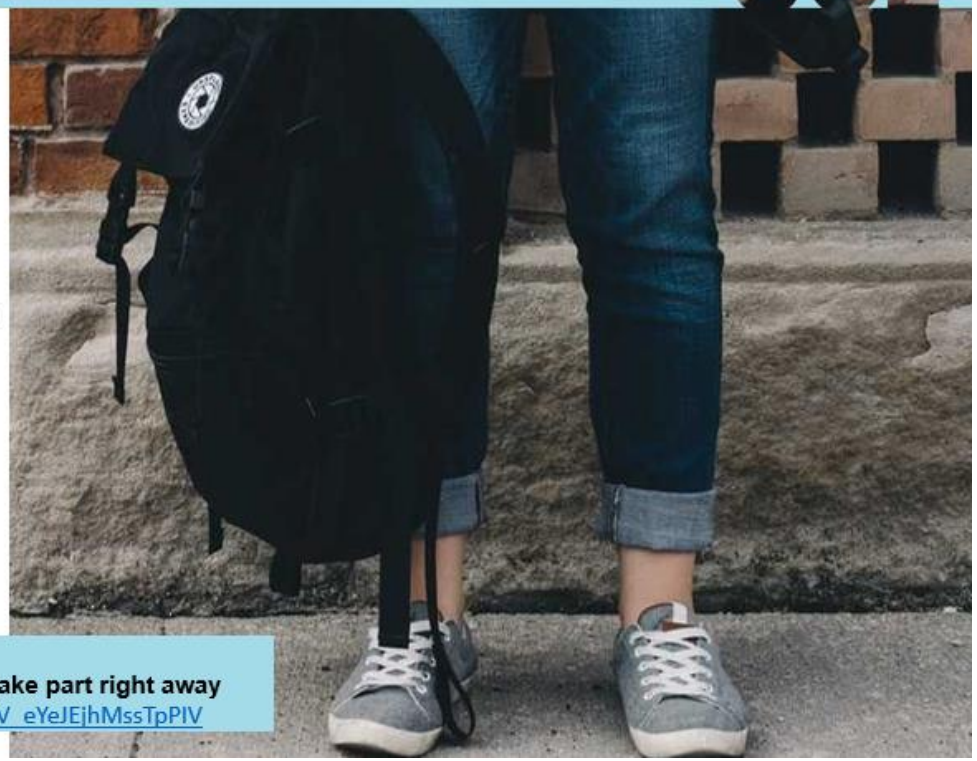
UCL

Students, we need you!

We have launched an online survey to understand the factors associated with student suicide, and to learn about how student support services can be improved.

We want to hear from all students, regardless of whether or not you have experienced suicidal thinking.

For each survey completed, £2 will be donated to Papyrus, a youth suicide prevention charity.



For more information and to take part visit understandingstudentsuicide.wordpress.com **or to take part right away head to** https://uclpsych.eu.qualtrics.com/jfe/form/SV_eYeJEjhMssTpPIV

Appendix M

Digital Study Information Sheet for Online Survey

What are the factors contributing to suicide risk amongst UK university students and what services might be appropriate?

Principal Investigator, Dr Janet Feigenbaum

Researchers: Larissa Barnett, [redacted]

Online Survey Study Information Sheet

Thank you for taking an interest in this study. Participation in this study is entirely optional and there will be no consequences if you choose not to take part. Before making a decision about whether or not you would like to take part, **it is important that you read this information sheet carefully**. If you are still happy to take part after reading this document, you can go back to the study website when you are ready (www.understandingstudentsuicide.wordpress.com) and participate in the study.

What is this study about?

In recent years, concerns have been noted about the number of student suicides in the UK. This study is concerned with understanding more about what makes some students feel suicidal. Please note, we would like to hear from a variety of students; **you do not need to have experienced suicidal thoughts to take part in this study**. Our aim is to better understand the factors leading to the increase in suicide rates, the stressors leading to suicidal thinking, and what suggestions students have for improving support systems.

Who can take part?

You are able to take part in this study if you;

- Are an undergraduate or postgraduate university student
- Are studying in the UK (including international students)

Why should I take part?

Participation in this study will help us to understand the reasons that some students might feel suicidal. With this information, we will be able to make recommendations for

universities about how they can support their students more effectively. The information would also give insight into how psychological or health care services may tailor their interventions to be more effective in helping reduce suicidal thinking amongst students.

For every survey completed, £2 will be donated to the Papyrus UK, up to the amount of £670.

What will the study involve?

If you decide to take part in our online survey, you will be asked a number of questions about yourself, some of your life experiences and how you spend your time. Some of these questions will be sensitive and may cause discomfort (please see the section below on "How might taking part affect me"). The survey is anonymous so you will not be asked to provide any information that would reveal your identity. However, you will be asked some demographic information such as your age, ethnicity or gender. The survey will take approximately 20-25 minutes to complete.

Please note, if you wish to contact us to raise a query or complaint about the survey, we may gain information that makes you identifiable (such as email addresses). Therefore, if you wish to contact us anonymously, please create an alternative email address to contact us.

How might taking part affect me?

The survey will ask some questions which you may find distressing, such as questions about suicidal thinking and mental health issues. You should not begin the survey at a time when you are feeling highly distressed. If during the survey, you do become distressed, there will be a "Click here if you feel distressed" button at the top of each question page. By clicking this button, you will be redirected to a new page which will give you a list of support services which can be accessed, should they be needed, as well as some self-help information such as information about mindfulness and self-soothe strategies. This information will also be given to you at the end of the survey. These pages are downloadable at any time. If the pages on managing distress are not helpful you may wish to contact the principal investigator for further advice and support in accessing support in your local area.

If you do click the "click here if distressed" button, it is up to the you to decide whether you would like to return to the survey to complete it or not. There will be no consequences if you choose not to complete the survey. However, you should note that once you have clicked the "next" button on any given page of the survey, responses already submitted cannot be withdrawn from the study because all responses are anonymous and therefore it will not be possible to identify which answer the you gave.

Giving informed consent

If you do decide to take part in the survey, on the first page of the survey you will see a consent form. In order to continue to the survey, you will need to show that you agree with the information detailed in this document by selecting each statement on the consent form before you will be able to proceed with the study.

The data that you provide in this study will be stored in a secure online password protected database for 20 years and after this period, all records will be destroyed.

Local Data Protection Privacy Notice

The controller for this project will be University College London (UCL). The UCL Data Protection Officer oversees UCL activities that involve the processing of personal data; they can be contacted at data-protection@ucl.ac.uk

This 'local' privacy notice sets out the information that applies to this particular study. If you would like further information on how UCL uses participant information, have a look at our 'general' privacy notice by clicking the link below:

For our 'general' privacy notice, click here

The information that must be given to participants, according to data protection legislation (GDPR and DPA 2018), is provided across both this 'local' and the 'general' privacy notices.

In this study, the following information will be collected: demographic information such as your age, gender, ethnicity and student status. This information will be used in the study write-up, to detail the group demographics of participants. All demographic information will be anonymous. It will be stored in a UCL data safehaven for 20 years, as is standard, and then deleted.

The lawful basis that will be used to process your *personal data* are: 'Public task' for personal data and' Research purposes' for special category data.

If you are concerned about how your personal data is being processed, or if you would like to contact us about your rights, please contact UCL in the first instance at data-protection@ucl.ac.uk.

Where can I find out about the results of the study?

A summary of the results of this study will be posted on our online website (www.understandingstudentsuicide.wordpress.com) in autumn 2020. Any publications that come from this study will also be posted on this site.

Researcher contact details: Larissa Barnett: [redacted]

Principal investigator: Dr. Janet Feigenbaum, Associate Professor Clinical Psychology, UCL

[redacted]

Appendix N

Digital Consent Form for Online Survey

Study Consent Form

Please read each statement carefully and select each statement to indicate that you understand and agree. You will not be able to proceed to the study until all boxes are selected.

I confirm that I have read and understood the study information sheet
I confirm that I am a university student studying in the UK
I understand that my participation in this study is voluntary and that I am not obliged to give consent
I understand that if I do not give consent to take part, there will be no consequences
I understand that I can withdraw my participation in this survey at any time without consequences
I understand that once I have contributed information to the survey and clicked “next”, that information cannot be withdrawn from this study
I understand that all contributions I make to this study will be anonymous
I understand that the contributions I make to this study will be included in the researcher’s thesis and may be published in a scientific journal
I agree to take part in this study

NEXT

Appendix O

Ethics Approval Letter

UCL RESEARCH ETHICS COMMITTEE
OFFICE FOR THE VICE PROVOST RESEARCH

25th June 2019

Professor Janet Feigenbaum
Research Department of Clinical, Educational and Health Psychology
UCL

Cc: Larissa Barnett [redacted]

Dear Professor Feigenbaum

Notification of Ethics Approval with Provisos
Project ID/Title: 15819/001: What are the factors contributing to suicide risk amongst UK university students and what might help?

I am pleased to confirm in my capacity as Chair of the UCL Research Ethics Committee (REC) that your study has been ethically approved by the UCL REC until **1st July 2020.** However, please provide your Data Protection registration number for our records and provide confirmation that a risk assessment has been completed.

Ethical approval is subject to the following conditions:

Notification of Amendments to the Research
You must seek Chair's approval for proposed amendments (to include extensions to the duration of the project) to the research for which this approval has been given. Each research project is reviewed separately and if there are significant changes to the research protocol you should seek confirmation of continued ethica approval by completing an 'Amendment Approval Request Form'
http://ethics.grad.ucl.ac.uk/responsibilities.php

Adverse Event Reporting – Serious and Non-Serious
It is your responsibility to report to the Committee any unanticipated problems or adverse events involving risks to participants or others. The Ethics Committee should be notified of all serious adverse events via the Ethics Committee Administrator (ethics@ucl.ac.uk) immediately the incident occurs. Where the adverse incident is unexpected and serious, the Joint Chairs will decide whether the study should be terminated pending the opinion of an independent expert. For non-serious adverse events the Joint Chairs of the Ethics Committee should again be notified via the Ethics Committee Administrator within ten days of the incident occurring and provide a full written report that should include any amendments to the participant information sheet and study protocol. The Joint Chairs will confirm that the incident is non-serious and report to the Committee at the next meeting. The final view of the Committee will be communicated to you.

Final Report
At the end of the data collection element of your research we ask that you submit a very brief report (1-2 paragraphs will suffice) which includes in particular issues relating to the ethical implications of the research

Office of the Vice Provost Research, 2 Taviton Street
University College London
Tel: +
Email: [redacted]
http://e

i.e. issues obtaining consent, participants withdrawing from the research, confidentiality, protection of participants from physical and mental harm etc.
In addition, please:

- ensure that you follow all relevant guidance as laid out in UCL's Code of Conduct for Research: https://www.ucl.ac.uk/srs/file/579
- note that you are required to adhere to all research data/records management and storage procedures agreed as part of your application. This will be expected even after completion of the study.

With best wishes for the research.

Yours sincerely

Joint Chair, UCL Research Ethics Committee

Appendix P

Demographics Form included in the Online Survey

Age: _____

Gender:

Male □ Female □ Prefer not to say □

Other: (please state) _____

Ethnicity:
Prefer not to say □

White:

English/Welsh/Scottish/Northern Irish/British □ Irish □

Gypsy or Irish traveller □ Other (please state): _____

Mixed/Multiple Ethnic Groups

White and black Caribbean □ White and black African □

Other (please state): _____

Asian/ Asian British

Indian □ Pakistani □ Bangladeshi □

Chinese □ Other (please state): _____

Black/ African/ Caribbean/ Black British

African □ Caribbean □

Other (Please state): _____

Relationships Status

Single □ Dating □ In a Committed Relationship □ Married □
Divorced □ Other (please describe): _____

Sexual orientation

Heterosexual □ Homosexual □ Bisexual □ Prefer not to say □ Other (please state) _____

Would you describe yourself as having a disability?

Yes □ No □ Prefer not to say □

Student status

UK student □ EU student □ Overseas student □

Degree level

Undergraduate student □ Postgraduate student □

Which of the Following best describes your current financial situation?

It's a financial struggle □ Things are tight, but doing fine □ Not a problem □

Appendix Q

Interpersonal Needs Questionnaire (INQ: Van Orden, Witte, Gordon, Bender & Joiner, 2008)

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Appendix R

The Psychache Scale (PAS: Holden, Mehta, Cunningham & Mcleod, 2001)

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Appendix S

*The PHQ-9 (*Kroenke, Spitzer & Williams, 2001)

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Appendix T

*The Almost Perfect Scale-Revised (*APSR: Slaney, Rice, Mobley Trippi & Ashby, 2001)

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Appendix U

Phases of Thematic Analysis (Braun & Clarke, 2006)

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Appendix V

Email of Thanks for Charity Donation Raised by the Study

Good morning,

I hope you are well and keeping safe during these strange and uncertain times.

Thank you so much [name], and to all of those who were involved in the research study from UCL, for your incredible donation of £670. Just £5 will go towards funding a contact to HOPELINEUK and so your generous donation has helped to save 134 young people struggling with thoughts of suicide. Thank you.

Due to the current situation we are working from home and unable to send post out, however I would love to send you out a thank you card once we are back in the office. Please let me know the best address to send this to and who I should include in the thank you?

Thank you again for thinking of PAPYRUS, your support truly means the world to us and is needed more now than ever before.

Please do get in touch if you need any further support.

Best wishes,

Fundraising Officer