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Future oriented constructs and their role in suicidal ideation and enactment

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Introduction

Philosopher Friedrich Nietzsche wrote that ‘the future influences the present just as much as the past.’ Numerous studies have demonstrated that individuals experiencing suicidal ideation struggle with recalling autobiographical memories (Williams & Broadbent, 1986) and that this may negatively impact individuals’ ability to think about their future (Williams et al., 1996; Williams et al., 2007). Furthermore, those who are suicidal are less able to generate positive thoughts about the future, relative to individuals who are not suicidal (MacLeod et al., 1997; O’Connor et al., 2008). Individuals who are suicidal are, therefore, trapped in limbo; their past self is inaccessible and, simultaneously, their future, or at least any semblance of a positive future, is unimaginable. The future, it would seem, is as distant and inaccessible as the past.

In as much as an absence of positive future thinking can be pernicious and increase a person’s likelihood of becoming suicidal, the presence of positive future thoughts and specific beliefs in a changeable future (future orientation) can be protective. Future orientation is a broad construct, but it also encompasses other ‘micro-constructs’, including future thinking, optimism, hope, and goal-directedness (Hirsch, Duberstein, Conner, et al., 2007). Future orientation is, however, greater than simply the sum of its parts; it is a specific belief in a changeable future (Chang et al., 2013). Hopefulness is a cognitive set proposed to comprise three elements: goals, mechanisms of achieving such goals, and the motivation to strive for these goals (Snyder et al., 1991), whereas optimism is a more general and non-specific sense of positive future possibilities (Carver & Scheier, 2014). The absence of future orientation, in all its various forms, has been highlighted as having a deleterious relationship with suicidal ideation and behaviour.

Suicide research and prevention have traditionally maintained a strong focus on psychiatric disorders as being central to the development of suicidal behaviour (Mann, Wateraux, Haas, & Malone, 1999). A shift away from psychiatric models and towards prioritising a broader array of psychosocial risk and protective markers, including future orientation, has much to offer. There is much appeal in the transdiagnostic nature of these constructs, which represent multifaceted targets for intervention and treatment development that could mitigate risk of suicide.

Among the general population, greater ability to conceive of a positive potential future is related to higher subjective wellbeing (Macleod & Conway, 2007). For example, among individuals with chronic pain – a population at elevated risk of suicide (Crane & Tang, 2006; Tang et al., 2016) - difficulties reconciling a desired future self with their actual self is associated with greater presence of depressive symptoms (Morley, Davies, & Barton, 2005). Yet, the protective effects of future orientation such as future thinking, optimism, and hopefulness, remain largely overlooked in suicide research. Virtually everyone asks the question ‘why do individuals who are suicidal want to die?’, but too few consider the opposite question: ‘why do individuals who are suicidal want to live?’ (Hirsch et al., 2007; Malone et al., 2000). Whether an individual will die by suicide or not is more than a simple scoreboard of reasons to die and reasons to live; it is the two elements in combination (Gutierrez, 2006; Jobes & Mann, 1999).

Within this chapter, we will discuss the literature around suicide risk and its relationship to the future oriented constructs future thinking and goals, optimism, and hopefulness. We begin by situating these constructs within the context of three contemporary theoretical frameworks of suicide, the Interpersonal-Psychological Theory of suicide (IPT; Joiner, 2005; Van

Orden et al., 2010), the Integrated Motivational-Volitional model of suicide (IMV; O'Connor, 2011; O'Connor et al., 2016), and the Three Step Theory of Suicide (3ST; Klonsky & May, 2015). There are many other models of suicide (e.g., Baumeister's (1990) Escape Model of Suicide) however; we focus here on the IMV, IPT and 3ST, as they have been the focus of substantial attention in contemporary suicidological research, within the last decade. This theoretical perspective allows us to better understand how future oriented constructs relate to other key variables of interest. We then describe the literature that underpins the relationship between suicide and each of these constructs, in turn. Finally, we make suggestions for potentially fruitful avenues for future research in this area and highlight some examples of interventions with a future-oriented focus.

Future oriented constructs within contemporary theoretical frameworks of suicide

The Interpersonal-Psychological Theory of suicide (IPT; Joiner, 2005; Van Orden et al., 2010)

Joiner's IPT model of suicide consists of three main elements: thwarted belongingness, perceived burdensomeness, and acquired capability (encompassing fearlessness about death and elevated physical pain tolerance) (Van Orden et al., 2010). According to the theory, each of these elements may be present in isolation; however, it is only when all three exist concurrently that a suicide attempt may ensue (Ribeiro & Joiner, 2009). Future oriented constructs are not specifically characterised within the IPT; however, hopelessness has been found to independently interact with both thwarted belongingness and perceived burdensomeness (Christenson et al., 2013) and has been studied widely for approximately 50 years (O'Connor & Nock, 2014). Rasmussen and Wingate (2011) also found that optimism moderates the

relationship between suicidal ideation and both thwarted belongingness and perceived burdensomeness, even when controlling for depressive symptoms.

The Integrated Motivational-Volitional model of suicide (IMV; O'Connor, 2011; O'Connor et al., 2016)

The IMV (O'Connor, 2011; O'Connor et al., 2016) model is a contemporary tripartite model that seeks to explain the transition from suicidal thoughts to suicidal behaviour. The pre-motivational phase of the model centres around a diathesis-stress paradigm (Hawton & Van-Heeringen, 2009; Van Heeringen, 2012), in which pre-existing vulnerability combines with acute life stress to increase the likelihood that an individual will think (ideate) about suicide. Central to the motivational phase of the model are experiences of defeat, humiliation, and entrapment, as a final common pathway towards developing the intention to act upon suicidal thoughts. Future oriented constructs of future thinking and goals are specifically included within the IMV model as motivational moderators, the presence or absence of which inhibits or facilitates the transition from feelings of entrapment to forming the intention to make a suicide attempt. The final phase of the model, the volitional phase, describes variables that differ between individuals who ideate about suicide (but do not make an attempt) and those who act upon their thoughts of suicide and attempt to end their life.

The Three Step Theory (3ST; Klonsky & May, 2015)

The 3ST (Klonsky & May, 2015) is the latest addition to the theoretical landscape in suicidology and comprises three elements: the combination of pain (physical and/or emotional) and hopelessness, a sense of connectedness outweighed by pain, and the capability for attempting

suicide (Klonsky & May, 2015). These elements represent a stepped dose-response pathway through ideation, strong ideation, and suicide attempt, respectively; only when all three elements are combined will a suicide attempt result. Of particular relevance for the current chapter is the idea that in the presence of pain, a person who feels hopeful about the future will be less likely to develop suicidal ideation (Klonsky & May, 2015).

Overall, however, among the majority of contemporary theories of suicidal ideation and behaviour, future oriented constructs receive short shrift. Only the IMV model (O'Connor, 2011; O'Connor et al., 2016) and the 3ST (Klonsky & May, 2015) explicitly characterises future orientation. Noticeably, research that has focused upon future thinking, goals, hopefulness, and optimism, has yet to tease apart whether these constructs are differentially associated with suicidal ideation or enactment; consistent with the IPT and IMV model, the ideation to action framework is now a key guiding principle for all suicide research (May & Klonsky, 2014).

Future thinking

A pervasive misconception amongst the general population is that individuals who are suicidal have more negative thoughts regarding the future. It is not, however, a greater volume of negative thoughts that characterises those who are suicidal but, rather, it is a dearth of positive thoughts about the future that appears to be most pernicious (MacLeod et al., 1997; O'Connor, Connery & Cheyne, 2000). MacLeod and colleagues developed the Future Thinking Task (FTT; MacLeod et al., 1997), a novel way of assessing individuals' ability to generate positive and negative thoughts about the future whereby individuals are asked to generate their own responses to the questions 'what are you looking forward to in the next week/next

month/next five to ten years?’ Negative future thoughts are assessed by asking ‘what are you not looking forward to....?’. Numbers of positive and negative future thoughts are totalled and compared. Conceptualisations of future orientation for individuals experiencing psychological distress often describe a more global negative outlook, for example, Beck’s Cognitive Triad (Beck, 1976) that describes a negative view of the self, world, and future, or the Beck Hopelessness Scale (BHS; Beck et al., 1974), assessing broad feelings about the future, loss of motivations, and expectations. The work of MacLeod et al. (1997) may suggest, however, that the absence of positive future thinking may be less global, and more specific to individual-level future thinking.

To this end, MacLeod and Conway (2007) investigated future thinking ability in controls who had never engaged in suicidal behaviour who were compared with individuals with a ‘parasuicidal¹’ behaviour history. The FTT was adapted to ask participants to generate positive thoughts about the future in relation to themselves, others, and ‘shared’ future thoughts (items that were repeated in both self and other categories). No significant differences were found between individuals in the parasuicide and control groups in their ability to generate positive future thoughts for others; however, those in the parasuicidal group generated significantly fewer positive future thoughts in relation to themselves, as well as fewer positive future thoughts that had a shared self-other component (MacLeod & Conway, 2007). Potentially, this suggests that the positive future thinking deficit is not pervasive; individuals who are suicidal are able to envisage positive future outcomes, however they are not able to do so in relation to

¹ Parasuicide is a term previously used to refer to self-harm. According to current definitions used by the UK National Institute of Health and Care Excellence (NICE; 2004; 2011), self-harm is ‘self-injury or self-poisoning irrespective of suicidal intent’.

themselves. Previous evidence also supports the idea that there is something about the self-referent nature of positive future thinking that is especially problematic for suicidal individuals. Vincent et al. (2004) examined ability to generate positive future goals and the means to achieving them in a sample of non-suicidal controls and those who had engaged in parasuicidal behaviour. Contrary to many prior (and subsequent) studies, there were no significant between-group differences in the number of goals generated. Those in the parasuicide group, however, rated both their control over achieving their goals and the likelihood of them being achieved, as significantly lower (Vincent et al., 2004). Findings from Vincent and colleagues (2004) ought to be interpreted cautiously given the small sample size ($n=24$ in each group), but the idea that it is not just difficulties generating the positive future goal itself, but also the means of achieving it, is an important insight. This is also a theme which is echoed in recent research examining rumination about events or goals in the future (i.e., future-oriented repetitive thoughts).

The Future-oriented Repetitive Thought scale (FoRT; Miranda et al., 2017) comprises three subscales assessing pessimistic repetitive future thinking, repetitive thinking about future goals, and positive indulging about the future. Individuals with a lifetime history of a suicide attempt reported higher levels of pessimistic repetitive future thinking than those with no history of suicide attempt, but those without a suicide attempt history scored *lower* on repetitive thinking about future goals and positive indulging about the future. A similar pattern was observed when examining individuals with suicidal ideation, although no significant differences in positive indulging were found (Miranda et al., 2017). When examining the content of the repetitive thinking of future goals subscale, items include: 'I think about how to

accomplish my future goals' and 'I make specific plans for how to get the things I want in life,' all aspects that relate to the mechanisms by which goals can be achieved. Consistent with the findings of Vincent et al. (2004), it appears that those who are suicidal are also less able to think of the means by which a positive future event may be brought about. Problem-solving ability has been consistently highlighted as impaired in those who are suicidal (Linda et al., 2012; McAuliffe et al., 2006; Pollock & Williams, 2004). One avenue for future research may be to explore the potential interaction between problem-solving skills and positive future thinking ability in those who are suicidal. It may be that positive future thinking ability could be enhanced by boosting problem-solving skills, so that the means by which one may achieve a desired positive future goal are more easily accessible to individuals when in a vulnerable psychological state.

Feelings that one is defeated and trapped, with no prospect of rescue are all factors associated with suicidal ideation and behaviour (Williams, 1997); although recent research has shown that these variables are not the most important in distinguishing between suicidal ideation and behaviour (Dhingra et al., 2015; 2016). It is easy to see how individuals who feel trapped and defeated may struggle to envisage a positive future, particularly when they are experiencing low mood. Two experimental studies of healthy adults (n=39; n=70) assessed future thinking following administration of a brief negative mood induction, during which participants listened to a piece of slow, classical music and were presented with sentences such as 'just when I think things are going to get better, something else goes wrong' (O'Connor & Williams, 2014). The first study assessed whether brooding rumination moderated the relationship between negative mood and positive future thinking, finding that individuals high

on brooding exhibited a more marked decrease from pre-mood induction baseline in the number of positive future thoughts they could generate. In Study 2, participants were again administered the negative mood manipulation and then assigned to receive either an impossible anagram task (defeat condition) or a solvable anagram task (control condition), followed by assessment of positive future thinking ability. Participants were also assessed for the presence of depressive symptoms and feelings of entrapment. Individuals who experienced the defeat manipulation and scored high on entrapment generated fewer positive future thoughts than those who scored low on entrapment (O'Connor & Williams, 2014). The directionality of this relationship should be explored further; it is also possible that inability to imagine a positive potential future may exacerbate or even directly contribute to feelings of entrapment and defeat.

Thoughts about the future can take many different forms. For example, one can look forward to an interpersonal event, such as meeting a friend for dinner or going on holiday with one's family, but it is also possible to look forward to things that are more individual (intrapersonal), such as gaining proficiency in a language, or enhancing one's ability to cope with stressful life events. Just as the valence of future thoughts may differ between individuals who are suicidal and those who are not, so too may the content of future thoughts. Prospective work by O'Connor, Smyth & Williams (2015) has taken a more nuanced approach to teasing apart the nature of positive future thoughts and their relationship to suicidal behaviour. In a sample of 388 individuals admitted to hospital following a suicide attempt, patients completed the FTT (MacLeod, 1997) among other measures of depression and hopelessness. Participants' FTT responses were evaluated based on whether the positive future thoughts they generated

were *intra*-personal (relating to improving a personal attribute) or *inter*-personal (relating to other people). Results from multivariate analyses showed that individuals with *higher* levels of intra-personal future thoughts were more likely to have been readmitted to hospital for self-harm, when followed up 15 months later. This finding was somewhat surprising as all previous research – which takes a global approach to positive future thinking – suggested that the absence, rather than the presence, of positive future thoughts was pernicious. This is the first study to examine the content of positive future thoughts and indicates that their content has a bearing upon their protective or deleterious functions for individuals who are suicidal.

Future work may also further investigate the importance of content in the future thinking – suicide risk relationship, and how this relates to other relevant variables. Greater intra-personal content, for example, may be related to self-criticism or socially prescribed perfectionism, whereby individuals constantly feel they are failing to meet the imagined (unrealistically) high standards of others. Social perfectionism has previously been demonstrated to moderate the relationship between level of positive future thinking and hopelessness in an adult community sample (O'Connor et al., 2004). Taken together with the findings of previous work (O'Connor et al., 2008), this latter study also demonstrated that future thinking has predictive power for hospital readmission for suicidal behaviour over the medium- to long-term, as well as the short-term. However, there is a chronic dearth of prospective studies, generally, in suicide research, and which also applies to the future thinking literature. It may be particularly useful to assess future thinking longitudinally, to investigate possible temporal fluctuations in future thinking.

Optimism

There has been recent research attention on the distinction between optimism and hope. Carver and Scheier (2014) characterise dispositional optimism as distinct from hope, as the former is a general positive expectancy regarding the future *without* the presence of specific steps or plans for achieving the positive outcome. Conversely, to hope for a positive outcome also requires that one envisage how to get there (Hirsch et al., 2007). Furthermore, optimism and hope are differentially associated with wellbeing and personality variables, thereby supporting the idea that these are distinct, although related, constructs (see systematic review and meta-analysis by Alarcon et al., 2013 for discussion).

Those who are better able to reframe and reconceptualise negative life experiences positively, conceptualized as an optimistic explanatory style, may have a reduced likelihood of ideating about or engaging in suicidal behaviour (Hirsch et al., 2006). Individuals who ideate about and enact suicidal behaviour have a disproportionately greater exposure to negative life events, such as interpersonal conflict (Baca-Garcia et al., 2007) and childhood adversity (Felitti et al., 1998), than individuals who have never thought about or engaged in suicidal behaviour. Being optimistic and able to continue to conceive of a positive future when faced with such distressing events may be protective, buffering against suicidal ideation, whereby those who are higher in trait optimism are less likely to contemplate suicide. Intriguingly, however, the relationship between optimism, suicidal ideation, and suicidal behaviour may not be linear. In a college student sample, Hirsch and colleagues (2007) investigated whether optimism moderated the relation between negative life events and suicidal ideation and behaviour. Participants' experiences of negative life events, such as physical abuse or having been in a car accident, were recorded, as well as dispositional optimism, hopelessness, depression, and

suicidal ideation and attempts. For those individuals reporting few negative life events, being low in optimism was associated with greater presence of suicidal ideation relative to those with higher optimism. As exposure to negative life events increased, however, the presence of suicidal ideation was elevated at all levels of optimism and, furthermore, those with moderate to high levels of optimism experienced the highest levels of suicidal ideation.

The same pattern was also observed for suicide attempt, with optimism moderating the relationship between low levels of negative life events and suicide attempt history, but when negative life event exposure increased, those with moderate and high levels of optimism were those most likely to have endorsed a lifetime suicide attempt (Hirsch et al., 2007). Further support for this also comes from the literature around chronic health conditions, such as chronic pain; , the persistence of belief in (often unrealistic) positive outcomes may actually be detrimental to wellbeing as it 'misallocates' valuable cognitive and emotional resources to unachievable goals whilst neglecting other more attainable aims, in a phenomenon termed 'misdirected problem-solving' (Eccleston & Crombez, 2007). Some individuals' persistence in maintaining a positive future outlook, even in the face of overwhelming evidence to the contrary, does not always have positive consequences. As such, this phenomenon has led to discussion about the 'dark side' of positivity, where a prevailing belief in positive outcomes sometimes leads people to ignore vital cues which may have led them to follow a better alternative path or to take steps to mitigate a negative outcome (Sweeny, Carroll, & Shepperd, 2006).

Sweeny and colleagues contend that too much optimism may result in a lack of preparedness, a cognitive state that allows one to anticipate and respond to unexpected events; thus, a certain degree of pessimism may be adaptive, as it allows individuals to prepare for the worst-case scenario. Chang et al. (2017) investigated the conjoint effects of optimism/pessimism and hope in relation to both depression and suicidal ideation. In their cross-sectional study of 508 Hungarian college students, Chang and colleagues found that pessimists who scored low on hope were more likely to report higher levels of depression and greater presence of suicidal ideation, than pessimists who scored highly on hope. Moreover, pessimists who reported high levels of hope were virtually equivalent in levels of depression and suicidal ideation to optimists with high levels of hope (Chang et al., 2017). Here, the authors find that for pessimists, it is the cost of *not* having hope rather than the benefit gained by having it, which is the active ingredient in the pessimism–suicide risk relationship.

Earlier work by Chang and colleagues (2013) examined the interaction between optimism/pessimism and future orientation in relation to depression and suicidal behaviour. Those high in optimism displayed no significant differences in depression or suicidal behaviour, as a function of greater future orientation. A different picture was found for pessimists, however, who reported significantly lower levels of depression and suicidal behaviour when their belief in a changeable future was high (Chang et al., 2013). Taken together with the work of Sweeny et al. (2006), it may, therefore, be the case that pessimists with higher levels of hope are better equipped if things go wrong but can also still envisage a positive outcome, as well as the necessary steps to bring this about. For pessimists low on hope, however, such a cognitive set may leave them expecting the worst, but they are unable to plan for how a positive

outcome may be reached. This converges with other evidence that both optimism and hope moderate the relationship between brooding (problem-focused) and reflective (solution-focused) rumination, and suicidal ideation (Tucker et al., 2013).

Thus, whilst optimism/pessimism may have a direct relationship with suicidal ideation and behaviour, it may also have an indirect relationship by exerting an influence upon other risk markers for suicide (e.g., rumination, perfectionism). For instance, high levels of optimism have been found to reduce the strength of the relationship between socially prescribed perfectionism and suicidal ideation (Blankstein, Lumley, & Crawford, 2007). Socially prescribed perfectionism, the constant belief that one is falling short of the (unrealistically high) standards of others, has been consistently associated with suicidal ideation (see O'Connor, 2007 for a review of this topic). As well, both optimism and hope are associated with lower levels of thwarted belongingness and burdensomeness, although surprisingly not with lower suicidal ideation (Davidson & Wingate, 2013). The sense that one is disconnected and is a detriment to others, are both key constructs within the IPT model of suicide (Joiner, 2005; Van Orden et al., 2010). As an example, in a sample of active service US military personnel, those who were high in optimism were more likely to exhibit lower levels of depression, hopelessness, and suicidal ideation compared to those low on optimism (Bryan & Ray-Sannerud, Morrow, & Etienne, 2013). Optimism, however, did not significantly affect post-traumatic stress disorder symptoms within this population. Future research should seek to elucidate more clearly the potential indirect relationships between optimism/pessimism and other key risk markers of suicidal ideation and enactment, as this will provide a fuller picture of the mechanisms by which optimism and other future oriented constructs may exert a protective influence.

Hopefulness

In contrast to the generality of optimism, hope comprises two distinct facets; that of an initial will to pursue or achieve a particular goal and then the specific steps that one may take to realise such a goal (Alarcon et al., 2013; Snyder, 1991). This definition of hope is at odds with a definition put forward by Bruiniks and Malle (2005) who, following a series of three studies which mapped individuals' definitions of 'hope', 'optimism', 'wishing' and other related states, concluded that hope is, in fact, an emotion, as opposed to a cognitive set. Furthermore, hoping encompassed an attachment to positive outcomes, even when these were unlikely to occur, as well as such outcomes also being less subject to perceived personal control (Bruininks & Malle, 2006). One argument posited by Bruininks and Malle (2006), related to this, is that the two-faceted definition does not allow for the presence of hope in the absence of control over one's life. This is particularly interesting within the context of suicide, as feelings of defeat, being brought to one's lowest point, and entrapment, having no prospect of rescue or escape, are strongly and directly related to suicidal ideation and behaviour (O'Connor et al., 2013). They are also indirectly related to suicidal ideation and behaviour via hopelessness, as individuals perceive no prospect of rescue or escape from their distress (Williams, 2001). Thus, within the context of suicide, it is entirely plausible for hope to be absent in the presence of reduced life control. This is further supported by recent work that has shown that hope moderates the relationship between entrapment and suicidal ideation at low and moderate levels of hope, such that when entrapment was high, those low on hope reported significantly higher suicidal ideation (Tucker, O'Connor, & Wingate, 2016).

Rather than solely an emotion then, hope appears to be a cognitive resource and asset which can be drawn upon to buffer psychological challenge in times of need. As discussed by Alarcon and colleagues (2013), such a conceptualisation of hope is consistent with the Conservation of Resources Theory (COR; Hobfoll, 2001), which suggests that it is the fit between the challenge faced and individuals' resources which determines whether a positive or negative outcome will ensue. For those faced with distressing and negative life events, presence of hope appears to ameliorate negative outcomes. Chang and colleagues (2015) examined suicidal behaviour in relation to hope among a sample of college students with and without experiences of sexual assault. Among the 325 participants, reports of suicidal behaviour were highest among individuals who had experienced sexual assault and were low in hope, even when controlling for depressive symptoms. Independent of their experience of sexual assault, students reporting high levels of hope endorsed the lowest levels of suicidal behaviour (Chang et al., 2015).

In another study, utilizing a sample of 200 African-American women from low-income backgrounds who had experienced intimate partner violence (IPV), the potential protective role of hope in the relationship between IPV and suicide risk was examined (Kaslow et al., 2002). This case-control study compared individuals reporting a previous suicide attempt (n=100) with those never having made a suicide attempt (n=100). Compared to their counterparts who had never attempted suicide, individuals who had attempted suicide scored lower on all protective factors, including hopefulness, social support, coping and self-efficacy (Kaslow et al., 2002). Whilst the case-control design prevents conclusions being made regarding whether the presence of hopefulness reduces risk of future suicide attempt, these findings suggest that even

in the presence of similar stressful life experiences, those lower on hopefulness are more likely to have attempted suicide in the past.

A similar relationship between absence of hopefulness and suicidal behaviour has also been observed in other minority populations. Lesbian, gay, bisexual, transgender, and questioning (LGBTQ) individuals are disproportionately at risk for engaging in suicidal behaviour (Haas et al., 2010; Skerrett, Kolves & De Leo, 2015), however, to date most of the research concerning LGBTQ suicide has focused upon the presence of psychiatric disorders. Hirsch, Cohn, Rowe, & Rimmer (2017) investigated the relationship between LGBTQ status, trait hopefulness, depression, and suicidal behaviour among a sample of American college students. Whilst LGBTQ status was independently associated with suicidal behaviour, there were also two indirect serial relationships: between LGBTQ status, depression, and suicidal behaviour, and between LGBTQ status, low trait hopefulness, depression, and suicidal behaviour (Hirsch et al., 2017). Consistent with Kaslow and colleagues' (2002) findings, the evidence from Hirsch et al. (2017) suggests that, for minority individuals, the relationship between psychological distress and suicide may be mitigated by individuals' ability to foresee the necessary steps required to achieve a desired positive future. Given that distress directly stemming from belonging to a sexual minority group has been highlighted as particularly deleterious (Haas et al., 2010; King et al., 2008), an important consideration for future research will be examining the nuanced nature of hopefulness among minority groups; is hopefulness that is specifically related to issues of minority status particularly protective, or is general hopefulness equally protective for this population?

Whilst there is a direct relationship between hope and suicidal ideation and behaviour, an indirect relationship may also exist via hope and its relationship with other proximate risk factors for suicide, such as acquired capability (encompassing fearlessness about death and elevated physical pain tolerance). Curiously, previous research has demonstrated that higher levels of hope correlated with higher levels of acquired capability for suicide (Davidson et al., 2009; Mitchell et al., 2015). Anestis and colleagues (2014) sought to further investigate this by examining whether distress tolerance – the ability to persist through aversive circumstances or states - explained this relationship, by administering self-report measures of distress tolerance, acquired capability, and trait hope to 230 US college students. Previous findings from Davidson et al. (2009) were replicated, in that higher levels of hope were associated with reduced feelings of burdensomeness and increased feelings of belongingness. Once again, higher trait hope was also correlated with higher levels of acquired capability. As predicted, Anestis et al. (2014) found that the relationship between higher hope and greater acquired capability for suicide was fully mediated by distress tolerance, even when controlling for depression. The ability to persist through pain and distress is a key contributor to acquired capability for suicide, in the form of reduced fearlessness about death and increased tolerance for physical pain (Ribeiro et al., 2013; Van Orden et al., 2010). Given that hope is comprised not only of the belief that a positive outcome is possible, but also of the cognitive capacity to envisage a specific plan for bringing about the desired outcome, it seems logical that the ability to tolerate an aversive state, in order to achieve such an outcome, may play a key explanatory role in this relationship. Within a therapeutic context, the association between high levels of hope and increased capability for suicide may present a unique challenge. The increased cognitive availability of

suicide as a method of escaping one's intense emotional pain could potentially lead distressed individuals to feel more hopeful that their desired future outcome - reducing their emotional pain and their (perceived) burden upon others- may be within their reach. Anestis and colleagues (2014) posit that hopefulness may, in fact, be a proxy indication of distress tolerance. Given the mediation effect found, these authors suggest it is highly unlikely that hope itself increases capability for suicide.

As discussed earlier in the chapter, acquired capability, along with thwarted belongingness and perceived burdensomeness, represent the three facets of Joiner's (2005) IPT model of suicide. The latter two constructs have also received attention in relation to hope, however, the evidence is not always convergent. Hollingsworth et al. (2016) investigated whether trait hope moderated the relationship between both thwarted belongingness and perceived burdensomeness, and suicidal behaviour in African American college students. Even when controlling for depressive symptoms, hope was a moderator, such that at high levels of hope, there was no longer a significant relationship between thwarted belongingness and suicidal ideation. This was also the case for perceived burdensomeness; the relationship between burdensomeness and suicidal ideation only remained significant when hope was low. Conversely, a study by Cheavens et al. (2016) did not find a moderating role for hope in the relationship between thwarted belongingness and suicidal ideation in older adults. Both studies employed the same measure of hope and both had relatively comparable sample sizes ($n=91$, Cheavens et al., 2016; $n=107$, Hollingsworth et al., 2016). Cheavens and colleagues (2016) posit that their null finding may potentially be related to the differing importance of belongingness for different age groups; older individuals may already have a smaller social network and, thus,

the effects of thwarted belongingness may not be as pronounced as for younger individuals with wider social networks. Feelings of burdensomeness, however, may be more present in older individuals. Differing effects of hope upon suicidal ideation should be further explored as a function of age, as this may contribute to the development of interventions that are tailored to address the most salient risk factors for particular age groups. Recent work by Walker, Chang and Hirsch (2017) provide further support for the idea that other established risk markers for suicide, such as social problem-solving, may play a moderating role in the relationship between hopelessness and suicidal behaviour. Their study of 233 primary care patients from low-income backgrounds found that neuroticism was indirectly related to suicidal behaviour via hopelessness. Furthermore, the relationships between neuroticism and hopelessness, and hopelessness and suicidal behaviour, were strongest when individuals' social problem-solving ability was low (Walker et al., 2017). This suggests that interventions that embed future oriented approaches within existing therapies, such as problem-solving therapy, should be considered in further research on treating suicidal thoughts and behaviour.

Future oriented interventions for suicidal thoughts and behaviour

Over the last decade, a small but growing body of research has investigated future oriented interventions for suicidal ideation and behaviour in both adults (e.g. van Beek, Kerkhof, & Beeker, 2009) and adolescents (Walsh, 1993). Given the proliferation of research around future oriented constructs and their relationship with suicidal ideation and behaviour, it is surprising that comparatively little attention has been directed towards translating these findings into interventions and treatments. Here we present some examples of future-oriented interventions, however, a more detailed account of the literature can be found in Chapter 10.

Van Beek and colleagues (van Beek, 2013; van Beek et al., 2009) developed Future Oriented Group Therapy (FOGT), which specifically targets reduction of hopelessness and worrying, and increasing realistic future perspectives within the context of suicide, by drawing upon elements of cognitive and problem-solving therapies (van Beek et al., 2009). In a randomised controlled trial (RCT) of FOGT in 150 patients with depression and suicidal ideation, the primary outcome of suicidal ideation was not significantly different between FOGT and treatment as usual (TAU) when all (intervention completing and non-completing) individuals were included in the analysis (van Beek, 2013). *Post-hoc* analysis comparing only individuals who attended 7 or more of the ten sessions with the TAU group, found a suicidal ideation reducing effect in the FOGT group (van Beek, 2013). Walsh et al. (1993) also found no significant differences from baseline in depressive symptoms, self-efficacy or future time perspective, following an art-based future orientation intervention with adolescent inpatients hospitalized for suicidal ideation. Additionally, an RCT conducted with adult outpatients with a recent suicide attempt found similarly unexpected results; the active control (cognition-focused) intervention performed better than the (future oriented) positive psychology intervention in reducing suicidality, hopelessness, and depressive symptoms, as well as increasing optimism, gratitude, and positive affect at 6-week follow-up (Celano et al., 2017). Evidently, there are numerous points to be discussed around future oriented interventions for suicidal ideation and behaviour; however, as previously mentioned, this is covered in detail in Chapter 10.

Future directions

Compared to risk factors for suicide, such as impulsivity or rumination, protective factors have received precious little attention. The literature around future orientation is

burgeoning and with this comes great opportunities for exciting and fruitful new avenues of research. Whilst the research energy around future oriented constructs is gaining momentum, it is key that research around risk and protective factors is integrated. 'There is no one path to suicide' (O'Connor & Sheehy, 2000) and, thus, research around risk and protective factors must achieve a greater level of cross-pollination than at present. It is essential for us to gain greater understanding of which protective factors work when and for whom, as well as whether certain protective factors are specific to particular aspects of risk, or offer more generalised protection against suicidal crises.

A strong and persuasive literature has established a direct relationship between a lack of future orientation and suicidal ideation and behaviour. Future research should also look to potential indirect pathways between future orientation and suicide, as some studies have already begun to do (e.g. Hirsch et al., 2017; Tucker et al., 2016), by examining factors that may mediate or moderate the relationship between future oriented constructs and suicidal ideation or behaviour. For example, Anestis and colleagues (2014) have highlighted the mediating role of distress tolerance in the relationship between hope and acquired capability for suicide. It may well be the case that other such mediating relationships exist. Recent work by Walker et al (2017) suggests that the relationship between hopelessness and suicidal behaviour may be most pronounced when social problem-solving ability is low. This approach, of considering other factors involved in the relationship between future orientation and suicidal behaviour, could maximise opportunities for intervention for those at potentially elevated likelihood of experiencing suicidal thoughts, prior to the occurrence of suicidal crisis, such as by embedding future oriented content within therapies for perfectionism and rumination, or for those seeking

support due to worries about their sexuality; all of which independently confer elevated risk for suicidal ideation.

Identifying factors that differentiate those who will think about suicide, without making an attempt, from those who will go on to make a suicide attempt, has been pinpointed as an area of critical research importance (May & Klonsky, 2014; O'Connor & Nock, 2014). Whilst several studies within the future oriented constructs and suicide literature have examined both suicidal ideation *and* behaviour (e.g. Hirsch et al., 2007; 2017), it would be highly beneficial for future research to directly compare individuals with suicidal ideation in the absence of behaviour to those who have enacted suicidal behaviour, on measures of future orientation.

Thus far, research examining the role of future oriented constructs in suicidal thoughts and behaviours has not yet fully explored whether particular kinds of future orientation may be more protective than others, or if specific 'profiles' combining different forms of future orientation may exist, which delineate differing trajectories of suicidality. These avenues of inquiry could prove fruitful for distilling down potential intervention targets from the wider pool of possibilities. It may also mean that more individually specific pathways, through which future orientation plays a role in suicidality, could be identified, leading to more nuanced psychosocial assessment and treatment targeting.

Conclusions

Much has already been achieved in the exploration of the role of future orientation in suicidal ideation and behaviour and there has been fertile ground laid for new avenues for research to take in the future. Within the current chapter we have discussed the literature

around future oriented constructs, and specifically future thinking, optimism, and hope. For the most part, future oriented constructs have received short shrift within theoretical models of suicide, even in more contemporary models.

In general, the absence of positive future thinking is related to increased likelihood of repeat suicidal behaviour (O'Connor et al., 2007; 2008). It appears though that this phenomenon is specifically self-referent, with individuals who have engaged in suicidal behaviour being better able to generate positive future thoughts for others compared to themselves (MacLeod & Conway, 2007). Positive future thoughts *per se*, may not always exert a protective effect. Indeed, the self-referent, that is, intrapersonal, nature of positive future thoughts may in fact be deleterious; individuals with a greater proportion of intrapersonal future thoughts as compared to interpersonal future thoughts were more likely to be readmitted to hospital for a suicide attempt (O'Connor & Williams, 2014). So, it is not the case that any positive future thought will suffice as a protective factor. The content or achievability of positive future thoughts may also play a pivotal role in their capacity to be protective during a suicidal crisis, with those engaging in suicidal behaviour potentially feeling less control over the actualisation of their positive future thoughts as well as less idea of the specific steps that one might take to achieve them (Vincent et al., 2004).

The more generalised conceptualisation of the possibility of a positive future (Carver & Scheier, 2014), optimism, may play a key role in buffering the effects of the many negative life events often encountered by those who are suicidal. Optimism too, though, may have its limits, such that when levels of negative life events are low and optimism is also low, individuals report greater suicidal ideation, but when negative life events increase, it is those with

moderate to high levels of optimism who are at greatest risk (Hirsch et al., 2007). This relation was also found for suicidal behaviour. Thus, for individuals experiencing the highest levels of psychological challenge, optimism may not offer increased protection. Optimism also exhibits a similar relationship to suicidal ideation and behaviour when examined in conjunction with other future oriented constructs. Those who are low on optimism (i.e., pessimists) exhibit low levels of both suicidal behaviour and depression when their belief in a changeable future is high, but for those who were highly optimistic, suicidal behaviour did not significantly alter as a function of greater presence of future orientation (Chang et al., 2013). Chang and colleagues (2017) posit an interesting and empirically testable explanation for these and similar findings; that the cost of future orientation being absent is greater than its protective presence at higher levels (i.e., there is an 'essential' threshold level for future orientation). If it falls below such a level, its absence leaves an individual more vulnerable to the effects of risk factors, but above the threshold it offers little additional shield against psychological distress. Additional explanation for this may be that individuals who are very high on optimism may completely ignore the possibility of a negative outcome and, thus, not prepare for such an eventuality (Sweeny et al., 2006). Pessimistic individuals may benefit from preparedness for a worst-case scenario and, in the presence of higher levels of hope, may have more specific and achievable plans for how a better outcome may be achieved. This may be particularly interesting to explore, given the longstanding association between suicidality and poor problem-solving (e.g. Pollock & Williams, 2004).

Extant research on future thinking converges with the body of research around hope, suicidal ideation and behaviour, as integral to hope is the ability to envisage the specific steps

that one may take to bring about a desired positive future event, or to steer a negative event to a more positive conclusion (Snyder, 1991). Hope has been found to moderate the relationship between sexual assault and suicidal behaviour (Chang et al., 2015), as well as the relationship between perceived burdensomeness and thwarted belongingness and suicidal ideation (Hollingsworth et al., 2016); however, presence of the latter relationship has not always been consistent (Cheavens et al., 2016). Of note, the planning capacity encompassed in hopefulness exhibits a positive relation to acquired capability for suicide, such that individuals high in hope have greater acquired capability for suicide (Davidson et al., 2009). It may, however, be the case that it is the capacity to withstand aversive states and circumstances (distress tolerance) that explains this relationship, as this in itself is a step to achieving a desired, albeit negative, outcome (Anestis et al., 2014).

Protective factors are all too frequently understudied within the field of suicide research and prevention. Suicide risk assessment tools rarely take protective factors into consideration, focusing instead on aspects that increase risk (e.g., history of mental illness, impulsivity, access to means). Whether or not an individual attempts to take his or her own life is not, however, the result of a mere accumulation of risk factors alone. Instead, it is where the cumulative weight of numerous complex risk factors interacts with an absence of protective factors, limiting one's ability to see a future, or causing one to see it as so aversive that suicide is perceived as the sole escape.

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