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Older Adults and Suicide as Examined Through the Lens of Joiner's Interpersonal Theory of Suicide

Pamela Holmes
University of Denver

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Department

Graduate School of Professional Psychology

First Advisor

Hale Martin

Second Advisor

Laurie Ivey

Third Advisor

Gil Milburn-Westfall

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Pamela Holmes
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APPROVED: _____
Hale Martin, PhD

_____
Laurie Ivey, PsyD

_____
Gil Milburn-Westfall, PsyD

Abstract

Older adults face the highest rates of suicide of all age groups. The older adult population is not a homogenous group, and each age range—young old, middle old, and oldest old—has specific risk factors. Although Joiner's interpersonal theory of suicide (IPTS) has been deemed valid among these age groups, it has not been specifically researched in older adults in each older age range. Due to lack of research and low reporting rates, not enough is known to develop specific detection and prevention measures targeting this population. This paper addresses the application of Joiner's IPTS to both genders in each of these older age ranges. Joiner's IPTS provides a solid framework for identifying risk factors and intervention points for older adults. Translating the age-related facets of Joiner's IPTS to the various older adult age brackets, further promises to improve mitigation of suicide risk among this growing and increasingly vulnerable population. Along with addressing and mitigating the risk factors under each facet of Joiner's IPTS, it is important to address the individual's societal and cultural context under which they occur.

According to the Centers for Disease Control and Prevention (CDC) in 2020, suicide rates in men over 75 are the highest of all age and gender groups at 40.5 per 100,000. Women of the same age have a suicide rate of 7.9 per 100,000, more than a five-fold difference from the male group (Centers for Disease Control and Prevention, 2013). Moreover, the problem of older adult suicide has been on the rise. In 2017, the suicide rate for older adults of both sexes from ages 65–74 was 26.2 per 100,000, a 6% increase over 1999, with men accounting for most of these suicides (Curtin & Hedegaard, 2019). Overall, men account for 80% of suicides in the 65 and older age range; this is in part due to a higher attempt rate and a higher completion rate for men than for women. By 2060, the size of the older adult population is expected to increase from 15% to 24% of the total population. Not only is the number of adults 65 years and older increasing rapidly, the fastest increase is occurring in the 85 years and older population (U.S. Census Bureau, 2014). Per-capita suicide rates for the oldest–old (i.e., 80 plus) are high throughout the world (Cattell, 2000) and are increasing in absolute magnitude due to baby boomers reaching late-life with increased life expectancy (Statistics Canada, 2010). With the combination of high suicide rates for older adult men and the growing older adult population, the national suicide crisis is poised to get worse unless prevention measures targeting older adults are implemented.

This study uses Joiner's interpersonal theory of suicide (IPTS) to examine the social and psychological risk factors unique to older adults. According to Joiner's theory, three components contribute to the desire to attempt suicide: (a) thwarted belongingness; (b) burdensomeness; and (c) fearlessness of pain, injury, and death (Joiner et al., 2009). *Thwarted belongingness* is defined as the experience of feeling alienated from family and friends with a lack of social connectedness to others. Perceived *burdensomeness* is defined as the extent to which an

individual feels they are a burden to others and loved ones would be better off without them. The last component of Joiner's theory, *fearlessness of pain, injury, and death*, asserts that those who are capable of death by suicide are those who have been exposed to repeated past pain and/or fearsome experiences. This repeated exposure can take many forms, including maltreatment, combat, self-harm, repeated death exposure, past attempts, and chronic physical pain. Thus, they are habituated to the fear of pain, self-injury, and death. This higher tolerance for pain and fearsome experiences, and exposure to death is necessary to override a human's natural propensity for self-preservation (Joiner et al., 2009). Although each factor alone increases the risk for passive suicidal ideation, active ideation develops when thwarted belongingness and perceived burdensomeness are both present and perceived as unchanging. Furthermore, when suicidal ideation is present with a lowered fear of death, suicidal intent—having specific plans and/or making preparations for suicide— increases. Among suicidal older adults, suicide is often viewed as a positive solution to adverse and unchanging life events (Rurup et al., 2011). Suicidal intent may quickly progress to attempt if pain tolerance is increased, because the habituation process has lowered one's fear of increased pain and death (Joiner et al., 2009).

A systematic meta-analysis of suicide research spanning the last decade supports Joiner's IPTS for all ages, but the primary focus has been on young adults (Chu et al., 2017). Additional research has been conducted linking burdensomeness and isolation to older adults' risk of suicide (Cukrowicz et al., 2011). However, specific research has not applied Joiner's complete theory to older adults. This study enhances the understanding of Joiner's theory as it applies to the older adult population. In so doing, it must be emphasized that the older adult population is not a homogeneous group, and the risk factors differ according to different age brackets: (a)

young–old (i.e., 65–74 years), (b) middle–old (i.e., 75–84 years), and (c) oldest–old (i.e., 85 years and over; Koo et al., 2017).

Developmentally, older adults face life transitions at more frequent intervals than other age groups, and life transitions create stress due to the forced adjustments they impose. In older adults, job loss, retirement, and widowhood are major life transitions that are causes for adjustment (Wheaton, 1990). Scant research has been conducted to examine the risk factors unique to each older adult age bracket through the lens of Joiner's IPTS; therefore, this paper explores the unique risk factors of older adult age groups using IPTS. Age-bracket-specific clarity can potentially aid clinicians in their assessment of suicide risk in older adults and provide better treatment recommendations.

Thwarted Belongingness

Humans have evolved to belong, and one of the most fundamental human needs is social connectedness (Baumeister & Leary, 1995). Research has indicated that of those who have died by suicide, many often experience social isolation before their deaths (Trout, 1980). As men age, they tend to lose certain roles due to unemployment, retirement, and illness. This is pronounced for men after age 65 when retirement is a common occurrence. The loss of social roles can contribute to a sense of thwarted belongingness. For example, an individual who was once part of a rich social network at work may no longer be part of that due to illness or retirement. He now finds himself without the role he identified with for so many years, thus, causing a sense of not belonging anymore. This is especially true if the loss of role was involuntary (Gallo et al., 2000). Research has shown the effect of losing a "good job" in later life increases stress for men, whereas in women the increase in stress is much less than in men (Isaksson & Johansson, 2000).

Furthermore, married men experience less of an effect from job loss than unmarried men (Wheaton, 1990). This exemplifies how the loss of employment may be harder for men when their sole identities and social connectedness are tied to employment. The increase in stress and isolation in later life not only involves role loss but also the likelihood of fewer opportunities to develop connections without employment. Limited job opportunities available to older adults, functional disability, or peers dying exacerbate this loss of connectedness. Interestingly, retirement has less effect on women than it does on men (Wheaton, 1990). This is because women's identities are generally not solely tied to work. They often have multiple roles, such as mother and/or caretaker. Plus, they often leave the job force temporarily or permanently after having children, making the transition to retirement easier. Additionally, research has shown a loss of socioeconomic status, often concomitant with job loss, is linked to suicidal ideation and suicide attempts among older adults (Dombrovski et al., 2018). Thus, retirement is the first major life transition associated with changes in social roles, responsibility, and identity contributing to a sense of thwarted belongingness (Kaplan & Berkman, 2016) .
Typically, this transition is most common in the young–old (i.e., ages 65–75) bracket, and confers a high risk for suicide.

Loss of interpersonal relationships are also a major contributing factor to thwarted belongingness. Marriage confers both economic and social benefits in old age. Although loss of a spouse is a stressful transition in older adulthood, having other social supports decreases the amount of stress it causes (Wheaton, 1999). Research has found men's emotional needs are often met by their spouses/partners, while women often get their emotional needs met by their female friends (Vandervoort, 2000). Thus, widowed men's lower rates of

social connectedness are implicated in higher rates of suicide as a facet of thwarted belongingness. This may explain why widowhood for men may be more detrimental when their emotional needs were previously met solely by their spouses. Although marriage is generally a buffer against loneliness, there are certain gender divides for older adults; for example, married women are at greater risk of loneliness than married men, but unmarried older adult women experience less loneliness than men (Hawkley et al., 2000). This may be due to the importance of marriage quality for women, whereas for men, that does not matter as much. Moreover, unmarried women have likely structured their social lives to receive most of their social support from family and friends. It has also been surmised that lower suicide rates in western Europe compared to the United States are due to older adults more commonly living with extended family in Europe (Draper, 2014). While death of a spouse confers a high risk for those aged 74 and up, divorce is also a risk factor for suicide aged 65-74. This highlights the importance of interconnectedness and social support as a buffer for suicidal ideation in older adults; thus, the gender divide between men's and women's suicide rates may depend heavily on different social structures experienced by each It also highlights the different life transitions experienced by age groups that increase their risk of suicide, and the importance of assessing after those relational losses.

Functional disability is another major contributing factor to thwarted belongingness. It is defined as limitations in daily activities or needing assistance in these activities (Lutz & Fiske, 2018). Over one third of the older adult population in the United States experiences disability (Brault, 2012; He & Larsen, 2014). According to the Joint Center for Housing Studies at Harvard University, 27% of those in the 65–74 age bracket experience some disability in

completing household activities versus 41% in the 75–79 age bracket and 61% in the age group of 80 or older (Sonnega et al., 2014). Disability becomes more prevalent with age as illness, health decline, and cognitive deterioration increase. Conwell (2001) found difficulty with daily living activities was associated with increased suicide risk after controlling for mental health disorders. Social outlets (e.g., hobbies) and social connectedness may be reduced or even lost due to the disability. Moreover, if an older adult needs more assistance, they may start to feel like a burden to others, which then contributes to the burdensomeness aspect of Joiner's theory. Additionally, if the functional disability is painful, it may also contribute to Joiner's acquired capacity for pain by habituating the individual to pain and subsequently increasing capability to engage in suicidal behavior. Thus, functional disability is a high-risk factor for older adults because it can contribute to all three aspects of Joiner's IPTS.

In summary, experiencing thwarted belongingness is an integral part of suicide risk in older adults. It may be due to employment loss (voluntary or involuntary), functional disability, or loss of a spouse. More specifically, role loss due to unemployment or functional disability affects men more than women due to men's identities being tied to those roles. Furthermore, being married can buffer role loss for men, whereas for women, having a strong social network is more of a buffer than marriage.

Burdensomeness

Perceived burdensomeness is the extent to which an individual feels they are a burden to others and that loved ones would be better off without them. The sense of being a burden to one's family is a predictor of suicide (de Catanzaro, 1995). Research has shown that among older adults, perceived burdensomeness is also a greater suicide risk factor for men than for women (Cukrowicz et al., 2011). Perceptions of burdensomeness may increase in older adults

during the transition to retirement. For men whose identities are often tied to providing financially for the household, retirement may not only force them out of this role, but it might force the household to rely on others for financial support. Many older adults experience distress when they require care from members of their family. The increased need for assistance from others may arise from medical problems or a job loss (Fliberti et al., 2001). In this case, some older adults may perceive themselves to be a burden and that being a burden is permanent. These perceptions might lead to contemplation of suicide, with death a seemingly reasonable solution to ongoing burdensomeness (Cukrowicz et al., 2011).

Another contributing factor to burdensomeness is lost autonomy. As individuals age, their autonomy declines through various physical and social factors. Research by Bamonti et al. (2014) found, among older adult men, those who placed high values on autonomy had an increased risk of depression and suicidal ideation. A lack of independence might contribute to a perception of burdensomeness to others, and threaten an individual's sense of self.

Perceived burdensomeness has been linked to functional disability and physical illness in older adults (Cukrowicz et al., 2011). This risk factor seems salient in the older adult population because as people age, their functioning declines, making them more dependent on their loved ones. Simply stated, perceived burdensomeness grows as one's physical health declines. Fortunately, there are protective factors in play, as evidence has shown maintaining an active lifestyle has a protective effect against the aging process for older adults (Colcombe & Kramer, 2003).

Fearlessness of Pain, Injury, and Death

The last component of Joiner's theory, fearlessness of pain, injury, and death, stipulates those who are capable of death by suicide are those who have been through past chronic pain,

repeated painful life events, or have been around death to the point they are habituated to the fear of pain, self-injury, and death (Joiner et al., 2009). Repeated exposure to painful and normally frightening events not only habituates one to the fear and pain of suicide but also reduces normal aversion to suicide and makes it easier to override a humans' natural propensity for self-preservation (Ohman & Mineka, 2001). Taken to its logical conclusion, fearlessness of pain evolves into fearlessness of death itself, and at this point completion of suicide becomes a viable option.

The prevalence of physical illness and chronic pain generally increases later in life. Studies have found correlations between the number of physical ailments and suicidality (Conwell et al., 2002a), and chronic pain has been linked to elevated suicidal ideation (Wilson et al., 2013. Men with severe pain were at higher risk of suicidal ideation than women with severe pain (Li & Conwell, 2010). Wilson et al. (2013) found perceived burdensomeness and thwarted belongingness exacerbated suicidal ideation among patients with chronic pain. Chronic pain or disability may compound suicidality risk to the extent they keep sufferers isolated from valued social connections and increase their reliance on others. As an individual's acute and chronic conditions increase, so does their risk for suicide (Conwell et al., 2002a).

Furthermore, among older adults who use healthcare resources, women are more likely than men to reach out and receive help when needed (Ahmedani et al., 2014), which explains some portion of the male-female gap in suicide attempts of those with ailments. Physical health and activity are correlated with positive psychosocial characteristics (Finkenzeller et al., 2018), thus indicating physical health can either be protective or a risk factor for suicide. Even older adults who experience non-life-threatening illnesses still perceive illness as a burden on life.

The high risk for suicide with chronic pain and physical illness, indicates the importance in assessing older adults when there is a decline in physical health.

Furthermore, there are links between the risk of suicide in the elderly and both physical and sexual abuse earlier in life (Draper et al., 2008; Sachs-Ericsson et al., 2013). Childhood maltreatment has been identified as a risk factor for suicide in older adults (Jardim et al., 2018), and has been linked to an increased risk of lifetime suicide attempts and ideation. This suggests not only habituation to pain via abuse but also a deep-seated thwarted sense of belongingness (Twomey et al., 2000). Adults who experienced early abuse had fewer friends, were significantly more isolated, and had more problematic relationships (Frederick & Goddard, 2008). Social alienation (i.e., thwarted belongingness) as a result of chjildhood abuse increases the risk of suicidal behavior in later life (Twomey et al., 2000).

Self-harm is a risk factor for suicide in all age groups (Hawton et al., 2003). However, older adults who self-harm are at a 67 times greater risk of suicide than younger populations who self harm. Men ages 75 or older are at the highest risk of suicide following self-harm (Murphy et al., 2012). Juurlink et al. (2004) found severe pain and suicide were correlated more strongly for men than women. These numbers highlight the increased risk of suicide due to the habituation of self-harm. The increase in numbers of suicides following self-harm may also indicate intent to die increases with age.

Findings also suggest older adults who self-harm experience feelings of isolation, loneliness, and loss of control as well as reaching later life with perceived burdensomeness (Troya et al., 2019). Not only does self-harm habituate one to acquired capacity for pain under Joiner's theory among the older adult population, but the motivation for self-harm also revolves

around a lack of social connectedness and burdensomeness. A loss of control was cited among the reasons for self-harm, which may be due to physical impairment, illness, or functional disability, all of which increase as adults age. This indicates the importance of assessing risk around self-harm because it can fall under all three facets of Joiner's IPTS.

Research has also shown nonsuicidal self-injury has been associated with an increased desire and capability for suicide later in life (Klonsky et al., 2013). Those with greater numbers of past suicide attempts and experiences of pain (i.e., self-injury) may be more capable of overcoming the fear of the pain involved in lethal self-injury and of suicidal behavior (Joiner et al., 2009). Among older adults, nonlethal suicide attempts decrease with age, while lethality increases along with less impulsivity (Miret et al., 2010). The increase in attempts coupled with the increase in lethality indicates not only habitation, but perhaps refining attempts, living in isolation (not being able to be revived in time) or maybe not being able to survive an attempt due to illness, etc.

As adults age, they will be exposed to more deaths by virtue of their peers aging. death is often anticipated following a long-term chronic illness (Carr, 2003). Thus, older adults may become desensitized to death due to anticipating death and death becoming a more common and less tragic occurrence. This can result in loss of their fear of death. For older adults, under Joiner's facet of acquired capacity for pain, there are three areas through which habituation occurs: (a) fear inducing events rooted in part in early abuse and subsequent self harm, (b) exposure to peers dying and (c) chronic pain and disability . However, the habituation process is a nuanced process, and research has shown there may be other mediating variables making individuals more vulnerable to the acquired capacity of pain, such as low levels of serotonin and genetics (Smith & Cukrowicz, 2010). Research has shown low levels of serotonin have been

implicated in aggressiveness and impulsivity (Joiner, 2005), and suicide attempters have had low serotonergic activity (Joiner et al., 2005). While low serotonin levels have been implicated in impulsivity and suicide, older adults tend to be less impulsive with more violent means for suicide (Krug et al., 2002). This may indicate that serotonin may be involved in suicide attempts for those who suffer from mental illnesses, such as dementia or depression, where low levels of serotonin are implicated. Genetics have been implicated as a mediating factor in acquired capacity for pain via heritable mood disorders and a family history of suicide (Runeson & Asberg, 2003), both possibly contributing via an underlying predisposition but also via habituation due to exposure to adverse environmental factors (i.e., psychological and physical). Furthermore, individuals with higher thresholds for pain and fearlessness were implicated in suicide attempts (Smith et al., 2010). Although acquired capacity for pain is an integral part in suicide attempts, mediating variables may make more people vulnerable to the acquired capacity of pain.

Life Events (by Age) Relevant to IPTS Factors

Stressful life events revolving around the process of aging have been found to precipitate suicide in older adults. Some of the most stressful life events precipitating suicide in older adults include (a) functional impairment and health decline, (b) relationship changes including the loss of loved ones, (c) employment changes such as retirement, (d) loss of employment social roles, and (e) relocation of residence (Conwell, 2001; Kaplan & Berkman, 2016). Although older adults face many life transitions that can affect their sense of self, research has shown these five as the ones older adults find stressful enough to deem them factors in suicide.

Loss of social roles is a phenomenon experienced in older adults that increases the risk of suicide (Moen et al., 1992). Although professional employment is one social role meriting

special consideration, there are a bevy of other social roles older adults possess, which when lost can be a risk factor for suicide. Not only do social roles affect identity, but changes inherent in aging also affect how roles may be lost (Whitbourne & Primus, 1996). For instance, decreased physical capabilities may render participation in a favorite sport or activity impossible. Changes in social roles are experienced by the older adult population throughout the aging process, and they need not be physical. Thus, changes in social roles can occur multiple times for a given individual for various reasons, at numerous points across the young-old, middle-old, oldest-old spectrum. For example, an older adult, in the young-old bracket may lose a social role to retirement and may then also lose his social role of spouse or caretaker, if his partner should also pass away. Those involved in multiple roles, particularly those who volunteer or are involved in organizations, have better psychological health and well-being (Moen et al., 1992). By having multiple roles, older adults can lose a particular role, but have the loss buffered by the existence of other roles, softening the difficulty of the transition. The value of multiple roles demonstrates the importance of interconnectedness as a dimension of suicidal risk.

Older adulthood frequently involves physical relocation events, from downsizing into a smaller home locally, establishing domicile in an entirely new locale, and perhaps eventually residing in an assisted living or nursing home. Relocation, which can happen multiple times in older adulthood, bestows suicide risk upon older adults. Relocation to an assisted living facility is typically due to an inability to care for oneself or not having the social support to remain cared for in one's home. Overall, mortality rates are higher for men going to a residential living facility (Dale et al., 2001) and rise after a wife's death (Shor et al., 2012). Those with the highest suicide rates were ages 65–75 living alone and 80+ living in a residential living facility (Erlangsen et al., 2004). In the younger group, this highlights the importance of social connectedness, and in the

older group, it points to thwarted belongingness, burdensomeness, both of which are components of IPTS.

Although there are specific life events that increase risk during the aging process, these life events vary by age groups, young–old (65-76), middle–old (77-84) and oldest–old (85 years and over). Findings revealed the young–old age group were significantly more likely to be separated and less likely to be widowed compared to the middle–old group. Meanwhile, the old–old were significantly more likely to be widowed, experience isolation, and medical issues, whereas work-related, financial, legal, and relationship stressors were mostly found among the young–old age bracket.

Depression

Psychiatric disorders have been implicated as a risk in suicidal behavior (Cavanagh et al., 2003). Older adults with a psychiatric illness were 44 to 114 times more likely to die by suicide than the control group (Conwell, 2001). Depression is the mental illness conferring the highest risk for suicide late in life, and 10% to 15% of men who died by suicide had been diagnosed with depression (Schmutte et al., 2009). Although depression confers a high risk, it interestingly decreases in older adult age groups with those aged 65–76 more likely to suffer from anxiety and substance use (Koo et al., 2017). This may be because of differences in how older adults report sadness, and the fact they may not be clinically depressed as defined by the *Diagnostic and Statistical Manual of Mental Disorders* (DSM)–5 or due to the stigma involved with reporting psychiatric symptoms.

Furthermore, although studies have shown depression is associated with suicidality, there is an argument that the influence of depression on suicidal behavior is indirect (Campos et al., 2016). Ashley et al. (2013) found perceived burdensomeness and thwarted belongingness were

the mediating mechanisms implicated in suicide. Additionally, Oliffe et al. (2011) found losing social bonds was central to older men's depression and thoughts about suicide. This indicates how thwarted belongingness and isolation are important factors when considering risk for suicide, especially for men. Furthermore, nonsuicidal self-injury was also found as a mediating factor between depression and suicidal risk (Kang et al., 2019). Although many studies indicate an older adult with a mood disorder is at the highest suicide risk, the picture is way more complicated. Due to older adults underreporting depressive symptoms, it is important to identify those at risk who may not fit those diagnostic categories. Although depression confers a high risk, the risk may be indirect, highlighting the importance of examining the mediating factors contributing to depression, many of which come under the three domains of Joiner's IPTS, and looking at risk factors independent of depression that also fall under IPTS.

Culture, Aging, and Self-Determinism

Although the focus of this paper is on suicidal ideation and behavior of older adults, one must take into consideration self-determination regarding end-of-life issues of older adults, including those facing terminal illness and those who consider their lives "complete with no further contributions to make" (Van Wijngaarden et al., 2015) . This is a complicated issue deserving some discussion.

Views of aging and end-of-life decisions are rooted in culture and vary accordingly. Generally speaking, Eastern cultures hold aging in a more positive light than Western cultures (Löckenhoff et al., 2009). This is due to beliefs based in filial piety and interconnectedness of the familial group. As a result, older adults are seen as valuable members of the group and are held in great esteem. Following those lines, many cultures do everything possible to keep older

adults alive as valued members of society while other cultures view older adults as a burden and some even take steps to end their lives (Gire, 2014). In the past, many Native American groups and some current African tribes have seen old and frail members as a burden to the tribe, and thus took steps to reduce the burden to the tribe. This was more commonly seen in hunter–gather societies and has shifted in postindustrial times. Currently, Native American tribes see older adults as wisdom keepers of the tribe and hold them in high esteem. Native Americans also view death as part of the natural life process and accept it rather than fear it. Similarly, many Eastern cultures view death as a transition to another life, and as a result, experience less anxiety about dying (Gire, 2014).

On the contrary, Western culture prizes autonomy, individuality, independence, and productivity. These values bear on end of life issues and may be why older adults fare worse in the aging process. There is an ethos running though western culture of free-will and taking control of one's final stages of life including when one should die. In the United States, information disclosure and medical decision-making recognize a patients' autonomy and wishes, whereas in the Middle East and Asia, standard care focuses on family decision-making and not individual decisions (Mobeireek et al., 2008), consequently, treatment and end of life decisions are discussed with the whole family. Interestingly, although the United States values self-determinism and autonomy, end-of-life laws reflect the opposite. In an article by ProCon.org (December 2021), although medically anyone has the right to refuse medical treatment that will hasten their death (i.e., passive euthanasia), only nine states have legalized assisted suicide due to medical considerations. This is likely due to political and religious institutions in the United States. in Europe and Asia, only a handful of countries have legalized physician-assisted suicide. Currently, the debate has deepened in the Netherlands, where medically motivated physician-

assisted suicide is legal, but has extended debate about physician assisted suicide for older adults who deem their life to be completed. These differing views on aging and death reflect not only how decisions are made when one ages, but also effect older adults' experience of pending death.

Even under the umbrella of death with dignity or assisted suicide, there is a divide between a medical necessity versus the notion of a "completed life." A completed life is described as "persons, mostly of old age, who do not see a future for themselves and, as a result, have developed a persistent, active death wish, without suffering that (mainly) originates in a medically classifiable condition" (Hartog et al., 2020, p. 2). Studies have shown a completed life is essentially "a tangle of inability and unwillingness to connect to one's actual life" (Van Wijngaarden et al., 2015, p. 262). There is an incongruence with their expectations of life and who they are currently. As a result, there is a feeling of being disconnected to life, and the desire to end life grows. The disconnectedness has been characterized by "(a) a sense of aching loneliness, (b) the pain of not mattering, (c) the inability to express oneself, (d) multidimensional tiredness, and (e) a sense of aversion towards feared dependence" (Van Wijngaarden et al., 2015, p. 260). Studies have also shown from the concept of a completed life stems from the values placed on self-determination, autonomy, and reasonability, but it is also influenced by fears, sadness, and loneliness (van Rein, 2013). This exemplifies how culture influences how one feels about aging and the way one copes with it.

In Western culture, when autonomy and independence are lost due to the aging process, societal relevance is lost as well, which makes sense as to why a feeling of a "completed life" surfaces. It allows the older adult to regain control they have lost and assuages incongruence between how one sees themselves and the standards they held themselves to earlier on in life.

This highlights how the concept of a completed life appears to be rooted in not only existential issues but also how older adults are valued in their communities.

Although physician assisted suicide due to medical necessity has clear guidelines, a completed life does not. There is room for interpretation when one is experiencing a completed life. In a study done with physicians and nurses, even when given a clear definition of completed life, there were differences in understanding and application (Van Humbeeck et al., 2022). It appears facets of a completed life all fall under the criteria of IPTS. The subjective nature of a "completed life" could lead to misuse and ageism. Due to the limited number of remaining years an older adult may have, it may be more acceptable for an older adult to consider their life completed than younger individuals. Thus, there may not be as diligent exploration of issues contributing to that feeling as there would be for younger adults. Additionally, how youth is valued in western society may also deem it more acceptable to consider life completed for older adults versus younger individuals.

Furthermore, medically assisted suicide and completed life suicide have the same ethical underpinning: The quality of life has been diminished due to existential suffering, and they no longer view life worth living. Regardless, the vagueness in autonomy and freedom of choice make them susceptible to misuse.

Death and aging are something everyone will experience, how each person approaches it depends on their values and cultures, specifically, the cultural values of the individual, and how that intersects with the values of society. There is often a clear-cut definition for what is deemed a medical necessity; however, a completed life is more ambiguous and generally falls under the blanket of suicide. These complexities should open more discussion in how older adults are viewed in society.

Clinical Implications

Due to the complexity of suicidal behaviors in older adults described above, multiple intervention points and screenings are indicated, and age-specific interventions are critical to prevention. Some important suggestions are listed below:

1. Older adults should be screened for mental health disorders that are correlated with suicidal ideation such as Major Depression, Anxiety, and Bipolar Disorder. Those who are diagnosed with mental health disorders correlated with suicidal ideation should be treated with evidence-based interventions. The combination of psychotherapy and medication has been shown to be one such effective evidence-based intervention. Furthermore, there should be a constant monitoring of symptoms. If symptoms do not remit, then treatment needs to be adjusted. Older adults who die by suicide are likely to visit their primary care physicians (PCPs) within 2 months before dying by suicide (Ahmedani et al., 2014; Luoma et al., 2002). Therefore, primary care offices may be the most opportune venue for detecting suicide risk factors. Research has shown interventions at this point have fostered improvements in reducing depression and self-harm behaviors among older adults (Lapierre et al., 2011). The PRISM-E study (Primary Care Research in Substance Abuse and Mental Health for Elderly) found older patients were more likely to engage in mental healthcare services provided in primary care settings than when they were referred to mental health clinics (Bartels et al., 2004). This may be due to the accessibility and frequency of visits to primary care and the reduced stigma of receiving treatment at primary care versus in a mental health center (Conner et al., 2010). The IMPACT study indicated older adults with depression who were randomly assigned to receive collaborative care showed a greater resolution of

depression and functional impairment, greater service use, and improved quality of life than those assigned to receive the usual care (Unützer et al., 2002). Clearly, both the setting and modality can be tailored to improve intervention for older adults.

2. Older adults should be screened for risk factors of suicide and suicidal ideation after major life transitions, such as functional impairment and health decline, loss of employment or loss of spouse. Schumacher et al. (1999) recommend undertaking a comprehensive assessment of older adults following major life events so that key indicators can be tracked from the outset of potential problems. These PCP assessments should include physical, emotional, and behavioral symptoms, functional status, social connectedness, perceived autonomy, and integrity. Specifically, they recommend examining life events that fall under Joiner's IPTS and assessing how many of each were experienced by older adults at risk of suicide. By further tailoring this to the various age groups, clinicians can improve the next steps in clinical intervention.
3. Once risk factors have been identified, such as isolation, burdensomeness, and acquired capacity for pain/desensitization to the idea of death, these factors should be addressed with the aim to reduce the potential of suicide. For instance, if isolation is the identified risk factor, improving interpersonal connection and reducing social isolation can reduce the risk of suicide. Studies in Japan showed decreasing social isolation by strengthening social support and increasing interpersonal connection reduced suicide rates (Brent & Melhem, 2008). Although patient-specific interventions are a possibility, community programs providing social support for older adults have also been instrumental in decreasing isolation. The Campaign to End Loneliness in the United Kingdom (Dzeng & Pantilat, 2018) has had beneficial

results in reducing suicide risk. Even a simple telephone outreach program has proven instrumental in decreasing isolation and reducing suicide (De Leo et al., 2002). Other interventions could involve increasing support to help older adults cope with disability.

4. Firearm restriction assessment should be made when older adults present with suicidal ideation or IPTS warning signs for suicidality. Firearm restrictions should occur when active suicidal ideation is present or all facets of the IPTS are endorsed. Firearm restriction should be continually monitored, and eased when active ideation subsides and/or the IPTS warning signs for suicidality decrease. Of older adults who die by suicide, most do by violent means (Krug et al., 2002). After controlling for demographic effects, gun ownership has predicted overall statewide suicide rates (Anestis & Houtsma, 2018), and 71% of older adults who died by suicide used a firearm (Conwell et al., 2002b). There is also an increased risk of suicide in men who own guns compared with female gun owners, and those who store their guns unlocked and loaded are at an increased risk. Research has shown when means are restricted (e.g., unloading guns, storing them in safes), suicide rates decrease (Gunnell & Nowers, 2007; Mann et al., 2005). It appears restriction and education regarding firearms is one prevention measure for reducing this suicide risk in later life. One plausible avenue for doing this would be through primary care offices as most will have visited their PCP in the 30 days before dying by suicide (Luoma et al., 2002).
5. Psychological interventions should also be considered for those older adults who demonstrate IPTS warning signs for suicidality. Cognitive restructuring techniques can be used with older adults to challenge and change the perceptions

of burdensomeness and thwarted belongingness. Additionally, behavioral activation where clients can identify values and then plan specific daily activities and social tasks aligned with those values. This can help the client take agency while also increasing social connectedness.

6. Chronic pain should also be addressed. Numerous therapeutic approaches have been beneficial in helping older adults cope with chronic pain and disability (Niknejad et al., 2018).
7. The issues of suicide versus death with dignity (physician assisted suicide) and the concept of a completed life are confusing. While there is a clear stated medical necessity for physician assisted suicide, the concept of a completed life is subjective and rooted in existential and cultural issues. Many of the existential issues fall under Joiner's IPTS, such as, loneliness and burdensomeness. This highlights the clinical importance of assessing certain age-related risk factors to implement the correct intervention points for suicide in older adults. Additionally, because end of life decisions for aging populations are rooted in culture, it is not only important to discuss those existential issues once those risk factors are identified, but also the context of culture for which it is imbedded.

Conclusions

Joiner's IPTS, which emphasizes loss of belongingness, burdensomeness and desensitization to death, provides a solid theoretical framework for assessing the risk of suicide among older adults. The factors posing a risk for suicidal ideation in older adults are (a) isolation, (b) functional disability, (c) illness, (d) chronic pain, (e) mental illness, and (f) loss of roles. Each of these items is represented in at least one dimension of Joiner's IPTS. Furthermore,

Joiner's IPTS also accounts for the specific gender differences with higher suicide rates for men versus women. This may be due to older women's richer interpersonal connectedness relative to older men. It may be due to the effects of retirement on men who historically have based more of their identity and social connectedness on employment than have women. Thwarted belongingness and interpersonal disconnection seem to be a lower risk in women, contributing to lower rates of attempted suicide in women than men. All these factors fit with Joiner's IPTS.

Although burdensomeness and thwarted belongingness are major risk factors for suicide and lead to ideation, it is the third component, habituation to pain and the acceptability of death, that leads from ideation to attempt. With the older adult population, it is specifically important for clinicians to explore current chronic pain, diseases, and functional disability because just one of those avenues can translate to all three components of IPTS, putting older adults who experience them at the highest risk for suicide.

Future research should address prevention and postvention care for older adults. One intervention that has promise is regular screening of all older patients by their primary care provider to determine the presence of Joiner's risk factors. For those at risk, means restriction (e.g., removing weapons from the house or locking up medications) is imperative. After those measures are taken, psychological interventions are of upmost importance. Numerous theoretical orientations are effective to decrease isolation, the feeling of burdensomeness, and desensitization to death. It is also important to explore those existential issues surrounding a "completed life" as well as the individual's cultural views of aging and death.

In conclusion, there is an intricate web of forces contributing to the increased risk of suicidal behavior in older adults. Joiner's IPTS posits thwarted belongingness, burdensomeness, and acquired capacity for pain and desensitization to death contribute to suicidality. Older adults are an at-risk population with growing numbers. Addressing the age-related facets of Joiner's

IPTS in specific relation to the various older adult age brackets promises to mitigate suicide risk among this growing and increasingly vulnerable population.

References

Ahmedani, B. K., Simon, G. E., Stewart, C., Beck, A., Waitzfelder, B. E., Rossom, R., Lynch, F., Owen-Smith, A., Hunkeler, E. M., Whiteside, U., Operskalski, B. H., Coffey, M. J., & Solberg, L. (2014). Health care contacts in the year before suicide death. *Journal of General Internal Medicine*, *29*(6), 870–877. https://doi.org/10.1007/s11606-014-2767-3

Anestis, M. D., & Houtsma, C. (2018). The association between gun ownership and statewide overall suicide rates. *Suicide and Life-Threatening Behavior*, *48*(2), 204–217. https://doi.org/10.1111/sltb.12346

Ashley, B. C., Laricka, R. W., Meredith, L. S., Raymond, P. T., David, W. H., & Victoria, M. O. K. (2013). Burdensomeness, depression, and suicide in a sample of American Indian college students. *Ethnicity and Inequalities in Health and Social Care, 6*(2/3), 77–86. https://doi.org/10.1108/EIHSC-10-2013-0026

Bamonti, P. M., Price, E. C., & Fiske, A. (2014). Depressive symptoms and suicide risk in older adults: Value placed on autonomy as a moderator for men but not women. *Suicide and Life-Threatening Behavior*, *44*(2), 188–199. https://doi.org/10.1111/sltb.12062

Bartels, S. J., Coakley, E. H., Zubritsky, C., Ware, J. H., Miles, K. M., Areán, P. A., Chen, H., Oslin, D. W., Llorente, M. D., Costantino, G., Quijano, L., McIntyre, J. S., Linkins, K. W., Oxman, T. E., Maxwell, J., Levkoff, S. E., & PRISM-E Investigators. (2004). Improving access to geriatric mental health services: A randomized trial comparing treatment engagement with integrated versus enhanced referral care for depression, anxiety, and at-risk alcohol use. *American Journal of Psychiatry*, *161*(8), 1455–1462. https://doi.org/10.1176/appi.ajp.161.8.1455

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497–529. https://doi.org/10.1037/0033-2909.117.3.497

Brault, M. W. (2012). *Americans with disabilities: 2010*. U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau.

Brent, D. A., & Melhem, N. (2008). Familial transmission of suicidal behavior. *Psychiatric Clinics of North America*, *31*(2), 157–177. https://doi.org/ 10.1016/j.psc.2008.02.001

Campos, R. C., Holden, R. R., Laranjeira, P., Troister, T., Oliveira, A. R., Costa, F., Abreu, M., & Fresca, N. (2016). Self-report depressive symptoms do not directly predict suicidality in nonclinical individuals: Contributions toward a more psychosocial approach to suicide risk. *Death Studies, 44*(6), 335–349. https://doi.org/ 10.1080/07481187.2016.1150920

Carr, D. (2003). A 'good death' for whom? Quality of spouse's death and psychological distress among older widowed persons. *Journal of Health and Social Behavior, 44*(2), 215–232. https://doi.org/10.2307/1519809

Cavanagh, J. T. O., Carson, A. J., Sharpe, M., & Lawrie, S. M. (2003). Psychological autopsy studies of suicide: A systematic review. *Psychological Medicine, 33*(3), 395–405. https://doi.org/10.1017/s0033291702006943

de Catanzaro, D. (1995). Reproductive status, family interactions, and suicidal ideation: Surveys of the general public and high-risk groups. *Ethology and Sociobiology*, *16*(5), 385–394. https://doi.org/10.1016/0162-3095(95)00055-0

Cattell, H. (2000). Suicide in the elderly. *Advances in Psychiatric Treatment*, *6*(2), 102–108. https://doi.org/10.1192/apt.6.2.102

Centers for Disease Control and Prevention. (2013). *Web-based injury statistics query and reporting system*. http://www.cdc.gov/injury/wisqars/index.html

Chu, C., Buchman-Schmitt, J. M., Stanley, I. H., Hom, M. A., Tucker, R. P., Hagan, C. R., & Joiner, T. E., Jr. (2017). The interpersonal theory of suicide: A systematic review and meta-analysis of a decade of cross-national research. *Psychological Bulletin*, *143*(12), 1313-1345. https://doi.org/10.1037/bul0000123

Colcombe, S., & Kramer, A. F. (2003). Fitness effects on the cognitive function of older adults: A meta-analytic study. *Psychological Science*, *14*(2), 125–130. https://doi.org/10.1111/1467-9280.t01-1-01430

Conner, K. O., Copeland, V. C., Grote, N. K., Koeske, G., Rosen, D., Reynolds, C. F., III, & Brown, C. (2010). Mental health treatment seeking among older adults with depression: The impact of stigma and race. *American Journal of Geriatric Psychiatry, 18*(6), 531–543. https://doi.org/10.1097/JGP.0b013e3181cc0366

Conwell, Y. (2001). Suicide in later life: A review and recommendations for prevention. *Suicide and Life-Threatening Behavior*, *31*(1), 32–47. https://doi.org/10.1521/suli.31.1.5.32.24221

Conwell, Y., Duberstein, P. R., & Caine, E. D. (2002a). Risk factors for suicide in later life. *Biological Psychiatry, 52*(3), 193–204. https://doi.org/10.1016/s0006-3223(02)01347-1

Conwell, Y., Duberstein, P. R., Connor, K., Eberly, S., Cox, C., & Caine, E. D. (2002b). Access to firearms and risk for suicide in middle-aged and older adults. *American Journal of Geriatric Psychiatry*, *10*(4), 407–416. https://doi.org/10.1097/00019442-200207000-00007

Cukrowicz, K. C., Cheavens, J. S., Van Orden, K. A., Ragain, M. R., & Cook, R. L. (2011). Perceived burdensomeness and suicidal ideation in older adults. *Psychology and Aging, 26*(2), 331–338. https://doi.org/10.1037/a0021836

Curtin, S. C., & Hedegaard, H. (2019). *Suicide rates for females and males by race and ethnicity: United States 1999 and 2017.* U.S. Department of Health & Human Services. https://www.cdc.gov/nchs/data/hestat/suicide/rates_1999_2017.htm

Dale, M. C., Burns, A., Panter, L., & Morris, J. (2001). Factors affecting survival of elderly nursing home residents. *International Journal of Geriatric Psychiatry*, *16*(1), 70–76. https://doi.org/10.1002/1099-1166(200101)16:1<70::aid-gps277>3.0.co;2-6

De Leo, D., Dello Buono, M., & Dwyer, J. (2002). Suicide among the elderly: The long-term impact of telephone support and assessment intervention in northern Italy. *The British Journal of Psychiatry, 181*, 226–229. https://doi.org/10.1192/bjp.181.3.226

Dombrovski, A. Y., Aslinger, E., Wright, A. G., & Szanto, K. (2018). Losing the battle: Perceived status loss and contemplated or attempted suicide in older adults. *International Journal of Geriatric Psychiatry*, *33*(7), 907–914. https://doi.org/10.1002/gps.4869

Draper, B. M. (2014). Suicidal behaviour and suicide prevention in later life. *Maturitas*, *79*(2), 179–183. https://doi.org/10.1016/j.maturitas.2014.04.003

Draper, B., Pfaff, J. J., Pirkis, J., Snowdon, J., Lautenschlager, N. T., Wilson, I., Almeida, O. P., & Depression and Early Prevention of Suicide in General Practice Study Group. (2008). Long-term effects of childhood abuse on the quality of life and health of older people: Results from the Depression and Early Prevention of Suicide in General Practice Project. *Journal of the American Geriatrics Society*, *56*(2), 262–271. https://doi.org/10.1111/j.1532-5415.2007.01537.x

Dzeng, E., & Pantilat, S. Z. (2018). What are the social causes of rational suicide in older adults? *Journal of the American Geriatrics Society*, *66*(5), 853–855. https://doi.org/10.1111/jgs.15290

Erlangsen, A., Jeune, B., Bille-Brahe, U., & Vaupel, J. W. (2004). Loss of partner and suicide risks among oldest–old: A population-based register study. *Age Ageing*, *33*(4), 378–383. https://doi.org/10.1093/ageing/afh128

Fässberg, M. M., Cheung, G., Canetto, S. S., Erlangsen, A., Lapierre, S., Lindner, R., Draper, B., Gallo, J. J., Wong, C., Wu, J., Duberstein, P., & Wærn, M. (2016). A systematic review of physical illness, functional disability, and suicidal behaviour among older adults. *Aging & Mental Health*, *20*(2), 166–194. https://doi.org/10.1080/13607863.2015.1083945

Gallo, W. T., Bradley, E. H., Siegel, M., & Kasl, S. V. (2000). Health effects of involuntary job loss among older workers: findings from the health and retirement survey. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *55*(3), S131–S140. https://doi.org/10.1093/geronb/55.3.S131

Hartog, I. D., Zomers, M. L., van Thiel, G. J., Leget, C., Sachs, A. P., Uiterwaal, C. S., ... & van Wijngaarden, E. (2020). Prevalence and characteristics of older adults with a persistent death wish without severe illness: a large cross-sectional survey. *BMC geriatrics*, *20*(1), 1-14. https://doi.org/10.1186/s12877-020-01735-0

Finkenzeller, T., Pötzelsberger, B., Kösters, A., Würth, S., Amesberger, G., Dela, F., & Müller, E. (2018). Aging in high functioning elderly persons: Study design and analyses of behavioral and psychological factors. *Scandinavian Journal of Medicine & Science in Sports*, *29*, 7–16. https://doi.org/10.1111/sms.13368

Fliberti, A., Ripamonti, C., Totis, A., Ventafridda, V., De Conno, F., Contiero, P., Tamburini, M. (2001). Characteristics of terminal cancer patients who committed suicide during a home palliative care program. *Journal of Pain and Symptom Management*, *22*(1), 544–553. https://doi.org/10.1016/S0885-3924(01)00295-0

Frederick, J., & Goddard, C. (2008). Living on an island: Consequences of childhood abuse, attachment disruption, and adversity in later life. *Child & Family Social Work*, *13*(3), 300–310. https://doi.org/10.1111/j.1365-2206.2008.00554.x

Gire, J. (2014). How death imitates life: Cultural influences on conceptions of death and dying. *Online Readings in Psychology and Culture*, *6*(2), 3–22. https://doi.org/10.9707/2307-0919.1120

Gunnell, D., & Nowers, M. (2007). Suicide by jumping. *Acta Psychiatrica Scandinavica, 96,* 1–6. https://doi.org/10.1111/j.1600-0447.1997.tb09897.x

Hawkley, L. C., Kozloski, M., & Wong, J. (2000). *A profile of social connectedness in older adults*. AARP Foundation. www.aarpfoundation.com

Hawton, K., Zahl, D., & Weatherall, R. (2003). Suicide following deliberate self-harm: Long-term follow-up of patients who presented to a general hospital. *British Journal of Psychiatry: The Journal of Mental Science*, *182*, 537–542. https://doi.org/10.1192/bjp.182.6.537

He, W., & Larsen, L. J. (2014). *Older Americans with a disability, 2008-2012*. U.S. Census Bureau.

Isaksson, K., & Johansson, G. (2000). Adaptation to continued work and early retirement following downsizing: Long-term effects and gender differences. *Journal of Occupational and Organizational Psychology*, *73*(2), 241–256. https://doi.org/10.1348/096317900167001

Jardim, G. B. G., Novelo, M., Spanemberg, L., von Gunten, A., Engroff, P., Nogueira, E. L., & Neto, A. C. (2018). Influence of childhood abuse and neglect subtypes on late-life suicide risk beyond depression. *Child Abuse & Neglect*, *80*, 249–256. https://doi.org/10.1016/j.chiabu.2018.03.029

Joiner, T. E. (2005). *Why people die by suicide.* Harvard University Press.

Joiner, T. E., Brown, J. S., & Wingate, L. R. (2005). The psychology and neurobiology of suicidal behavior. *Annual Review of Psychology, 2005*(56), 287–314. https://doi.org/10.1146/annurev.psych.56.091103.070320

Joiner, T. E., Van Orden, K. A., Witte, T. K., & Rudd, D. M. (2009). *The interpersonal theory of suicide. Guidance for working with suicidal clients.* American Psychological Association.

Juurlink, D. N., Herrmann, N., Szalai, J. P., Kopp, A., & Redelmeier, D. A. (2004). Medical illness and the risk of suicide in the elderly. *Archives of Internal Medicine*, *164*(11), 1179–1184. https://doi.org/10.1001/archinte.164.11.1179

Kang, N., You, J., Huang, J., Ren, Y., Lin, M. P., & Xu, S. (2019). Understanding the pathways from depression to suicidal risk from the perspective of the interpersonal–psychological theory of suicide. *Suicide and Life-Threatening Behavior*, *49*(3), 684–694. https://doi.org/10.1111/sltb.12455

Kaplan, D. B., & Berkman, B. J. (2016). *Effects of life transitions on the elderly*. MSD. https://www.merckmanuals.com/professional/geriatrics/socialissues-in-the-elderly/effects-of-life-transitions-on-the-elderly

Kim, J. E., & Moen, P. (2001). Is retirement good or bad for subjective well-being? *Current Directions in Psychological Science*, *10*(3), 83–86. https://doi.org/10.1111/1467-8721.00121

Klonsky, E. D., May, A., & Glen, C. (2013). The relationship between nonsuicidal self-injury and attempted suicide: Converging evidence from four samples. *Journal of Abnormal Psychology*, *122*(1), 231–237. https://doi.org/10.1037/a0030278

Koo, Y. W., Kolves, K., & De Leo, D. (2017). Suicide in older adults: Differences between the young-old, middle-old, and oldest-old. *International Psychogeriatrics, 29*(8), 1297–1306. https://doi.org/10.1017/S1041610217000618

Krug, E. G., Mercy, J. A., Dahlberg, L. L., & Zwi, A. B. (2002). The world report on violence and health. *The Lancet*, *360*(9339), 1083–1088. https://doi.org/10.1016/S0140-6736(02)11133-0

Lapierre, S., Erlangsen, A., Waern, M., De Leo, D., Oyama, H., Scocco, P., Gallo, J., Szanto, K., Conwell, Y., Draper, B., Quinnett, P., & International Research Group for Suicide Among the Elderly. (2011). A systematic review of elderly suicide prevention programs. *Crisis*, *32*(2), 88–98. https://doi.org/10.1027/0227-5910/a000076

Li, L. W., & Conwell, Y. (2010). Pain and self-injury ideation in elderly men and women receiving home care. *Journal of the American Geriatrics Society*, *58*(11), 2160–2165. https://doi.org/10.1111/j.1532-5415.2010.03151.x

Löckenhoff, C. E., De Fruyt, F., Terracciano, A., McCrae, R. R., De Bolle, M., Costa, P. T., Aguilar-Vafaie, M. E., Ahn, C.-k., Ahn, H.-n., Alcalay, L., Allik, J., Avdeyeva, T. V., Barbaranelli, C., Benet-Martinez, V., Blatny, M., Bratko, D., Cain, T. R., Crawford, J. T., Lima, M. P., . . . & Yik, M. (2009). Perceptions of aging across 26 cultures and their culture-level associates. *Psychology and Aging*, *24*(4), 941-954. https://doi.org/10.1037/a0016901

Luoma, J. B., Martin, C. E., & Pearson, J. L. (2002). Contact with mental health and primary care providers before suicide: A review of the evidence. *American Journal of Psychiatry*, *159*(6), 909–916. https://doi.org/10.1176/appi.ajp.159.6.909

Lutz, J., & Fiske, A. (2018). Functional disability and suicidal behavior in middle-aged and older adults: A systematic critical review. *Journal of Affective Disorders*, *227*, 260–271. https://doi.org/10.1016/j.jad.2017.10.043

Mann, J. J., Apter, A., Bertolote, J. M., Beautrais, A., Currier, D., Haas, A. P., Hegerl, U., Lonnqvist, J., Malone, K., Marusic, A., Mehlum, L, Patton, G., Phillips, M., Rutz, W., Rihmer, Z., Schmidtke, A., Shaffer, D., Silverman, M., Takahashi, Y., Varnik, A., Wasserman, D., Yip, P., & Hendin, H. (2005). Suicide prevention strategies: A systematic review. *JAMA, 294*(16)*,* 2064–2074. https://doi.org/jama.294.16.2064

Miret, M., Nuevo, R., Morant, C., Sainz-Cortón, E., Jiménez-Arriero, M. Á., López-Ibor, J. J., Reneses, B., Saiz-Ruiz, J., Baca-García, E., & Ayuso-Mateos, J. L. (2010). Differences between younger and older adults in the structure of suicidal intent and its correlates. *American Journal of Geriatric Psychiatry*, *18*(9), 839–847. https://doi.org/10.1097/JGP.0b013e3181d145b0

Mobeireek, A. F., Al-Kassimi, F., Al-Zahrani, K., Al-Shimemeri, A., Al-Damegh, S., Al-Amoudi, O., Al-Ethan, S., Al-Ghamdi, B., & Gamal-Eldin, M. (2008). Information disclosure and decision-making: the Middle East versus the Far East and the West. *Journal of Medical Ethics*, *34*(4), 225–229. https://doi.org/10.1136/jme.2006.019638

Moen, P., Dempster-McClain, D., & Williams, R. M., Jr. (1992). Successful aging: A life-course perspective on women's multiple roles and health. *American Journal of Sociology*, *97*(6), 1612–1638. https://doi.org/10.1086/229941

Murphy, E., Kapur, N., Webb, R., Purandare, N., Hawton, K., Bergen, H., Waters, K., & Cooper J. (2012). Risk factors for repetition and suicide following self-harm in older adults: Multicentre cohort study. *The British Journal of Psychiatry, 200*(5), 399–404. https://doi.org/10.1192/bjp.bp.111.094177

Niknejad, B., Bolier, R., Henderson, C. R., Delgado, D., Kozlov, E., Löckenhoff, C. E., & Reid, M. C. (2018). Association between psychological interventions and chronic pain outcomes in older adults: A systematic review and meta-analysis. *JAMA Internal Med*, *178*(6), 830–839. https://doi.org/jamainternmed.2018.0756

Oliffe, J. L., Han, C. S., Ogrodniczuk, J. S., Phillips, J. C., & Roy, P. (2011). Suicide from the perspectives of older men who experience depression: A gender analysis. *American Journal of Men's Health*, *5*(5), 444–454. https://doi.org/10.1177/1557988311408410

Ohman, A., & Mineka, S. (2001). Fears, phobia, and preparedness: Toward an evolved module of fear and fear learning. *Psychological Review, 108*(3),483–522. https://doi.org/10.1037/0033-295X.108.3.483

Runeson, B., & Asberg, M. (2003). Family history of suicide among suicide victims. *American Journal Psychiatry, 160,* 1525–1526. https://doi.org/10.1176/appi.ajp.160.8.1525

Rurup, M. L., Pasman, H. R. W., Goedhart, J., Deeg, D. J. H., Kerkhof, A. J. F. M., & Onwuteaka-Philipsen, B. D. (2011). Understanding why older people develop a wish to die. *Crisis, 32*(4), 204–216. https://doi.org/10.1027/0227-5910/a000078

Sachs-Ericsson, N., Corsentino, E., Rushing, N. C., & Sheffler, J. (2013). Early childhood abuse and late-life suicidal ideation. *Aging & Mental Health*, *17*(4), 489–494. https://doi.org/10.1080/13607863.2012.758236

Schmutte, T., O'Connell, M., Weiland, M., Lawless, S., & Davidson, L. (2009). Stemming the tide of suicide in older white men: A call to action. *American Journal of Men's Health*, *3*(3), 189–200. https://doi.org/10.1177/1557988308316555

Schumacher, K. L., Jones, P. S., & Meleis, A. I. (1999). Helping elderly persons in transition: A framework for research and practice. In E. A. Swanson & T. Tripp-Reimer (Eds.), *Life transitions in the older adult: Issues for nurses and other health professionals* (pp. 1–28). Springer.

Shor, E., Roelfs, D. J., Curreli, M., Clemow, L., Burg, M. M., & Schwartz, J. E. (2012). Widowhood and mortality: A meta-analysis and meta-regression. *Demography*, *49*(2), 575–606. https://doi.org/10.1007/s13524-012-0096-x

Smith, P. N., & Cukrowicz, K. C. (2010). Capable of suicide: A functional model of the acquired capability component of the interpersonal-psychological theory of suicide. *Suicide and Life-Threatening Behavior*, *40*(3), 266–275. https://doi.org/10.1521/suli.2010.40.3.266

Smith, P. N., Cukrowicz, K. C., Poindexter, E. K., Hobson, V., & Cohen, L. M. (2010). The acquired capability for suicide: A comparison of suicide attempters, suicide ideators, and non-suicidal controls. *Depression and Anxiety*, *27*(9), 871–877. https://doi.org/10.1002/da.20701

Sonnega, A., Faul, J. D., Ofstedal, M. B., Langa, K. M., Phillips, J. W., & Weir, D. R. (2014). Cohort profile: The Health and Retirement Study (HRS). *International Journal of Epidemiology*, *43*(2), 576–585. https://doi.org/10.1093/ije/dyu067

ProCon.org. (2021, December 14). *States with legal physician-assisted suicide.* https://euthanasia.procon.org/states-with-legal-physician-assisted-suicide

Statistics Canada. (2010). *Population projections for Canada, provinces and territories 2009 to 2036*. http://www.statcan.gc.ca/pub/91-520-x/91-520-x2010001-eng.pdf

Trout, D. L. (1980). The role of social isolation in suicide. *Suicide and Life-Threatening Behavior*, *10*(1), 10–23. https://doi.org/10.1111/j.1943-278X.1980.tb00693.x

Troya, M., Babatunde, O. O., Polidano, K., Bartlam, B., McCloskey, E., Dikomitis, L., & Chew-Graham, C. A. (2019). Self-harm in older adults: A systematic review. *The British Journal of Psychiatry*, *214*(4), 186–200. https://doi.org/10.1192/bjp.2019.11

Twomey, H. B., Kaslow, N. J., & Croft, S. (2000). Childhood maltreatment, object relations, and suicidal behavior in women. *Psychoanalytic Psychology, 17*(2), 313–335. https://doi.org/10.1037/0736-9735.17.2.313

U.S. Census Bureau. (2014). *Projection of the size and composition of the U.S. population*. http://www.census.gov

Unützer, J., Katon, W., Callahan, C.M., Williams, J.W. Jr, Hunkeler, E., Harpole, L., Hoffing, M., Della Penna, R. D., Noël, P. H., Lin, E. H. B., Areán, P. A., Hegel, M. T., Tang, L., Belin, T. R., Oishi, S., Langston, C., & Impact Investigators. (2002). Collaborative care management of late-life depression in the primary care setting: A randomized controlled trial. *JAMA, 288*(22), 2836–2845. https://doi.org/10.1001/jama.288.22.2836

Vandervoort, D. (2000). Social isolation and gender. *Current Psychology*, *19*(3), 229–236. https://doi.org/10.1007/s12144-000-1017-5

Van Humbeeck, L., Piers, R., De Bock, R., & Van Den Noortgate, N. (2022). Flemish healthcare providers' attitude towards tiredness of life and euthanasia: A survey study. *Aging & Mental Health, 26*(1), 205–211. https://doi.org/10.1080/13607863.2020.1870205

van Rein, P. S. (2013). *Petitioning for completed life: a thematic content analysis* (Publication No. 3592026) [Doctoral dissertation, Walden University]. ProQuest Dissertations and Theses Global.

Waern, M., Rubenowitz, E., Runeson, B., Skoog, I., Wilhelmson, K., & Allebeck, P. (2002). Illness burden in elderly suicides: A controlled study. *British Medical Journal*, *324*(7350), 1355–1358. https://doi.org/10.1136/bmj.324.7350.1355

Wheaton, B. (1990). Life transitions, role histories, and mental health. *American Sociological Review, 55*(2), 209–223. https://doi.org/10.2307/2095627

Wheaton, B. (1999). *The nature of stressors.* In A. V. Horwitz & T. L. Scheid (Eds.), *A handbook for the study of mental health: Social contexts, theories, and systems* (pp. 176–197). Cambridge University Press.

Whitbourne, S. K., & Primus, L. (1996). Physical identity in later adulthood. *Encyclopedia of Gerontology*, 733–742. https://doi.org/10.1093/geronb/58.6.P313

Wilson, K. G., Kowal, J., Henderson, P. R., McWilliams, L. A., & Péloquin, K. (2013). Chronic pain and the interpersonal theory of suicide. *Rehabilitation Psychology*, *58*(1), 111–115. https://doi.org/10.1037/a0031390