Intellectual Disability and Suicide Risk: An Exploratory Discussion
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Abstract
Suicide risk, ideation, and behavior in adults with intellectual disability are explored from a suicide prevention perspective. Growing research literature on suicidality in adults with mild intellectual disability is reviewed. Chronic suicidality and contingent suicide threats are introduced to aid in understanding suicidal behavior within this population who may have no intent to die. Recommendations are provided for suicide prevention efforts specifically for those within this at-risk population. Areas for further research are identified.

Keywords: Intellectual Disability, prevention, suicide, theories
Background

Intellectual disability (ID) is a common, well-recognized developmental disorder. However, individuals with ID, especially those in mild to moderate ranges, may not always be recognized as disabled. Elevated suicide risk may go unnoticed and ID may not be identified in individuals exhibiting suicidal behavior or in completed suicides. Individuals with ID are at an increased risk for manifesting mental illness, with rates of psychopathology higher than the general population (Merrick, J., Merrick, E., Lunskey & Kandel, 2005). Yet, psychiatric disorders appear to be under diagnosed in this population because an ID diagnosis may predominate other evaluations (Merrick et al., 2005). Similarly, recognition of suicidal behavior and an assessment of suicide risk in persons with ID may be given less attention.

From 1999 to 2014, the U.S. age-adjusted suicide rate rose from 10.5 to 13.0 per 100,000 people (a 24% increase), with the greatest rise occurring after 2006 (Curtin, Warner & Hedegaard, 2016). There were 42,773 reported suicides in the U.S. in 2014 (Drapeau & McIntosh, 2015). The distribution of these deaths are known by age, gender, race, ethnicity, state, and region, but it is unknown how many of these deaths were adults with mild ID. The reported rates may have been affected by certain societal events. Suicide rates in the U.S. and elsewhere were affected by the economic recession of 2007 (Reeves, Stuckler, McKee, Gunnell, Chang et al., 2012). It is unclear how such an event impacts the incidence of suicide or suicidal behavior within a population, which is more likely to be adversely affected than the general population. Suicide is preventable, however it remains unclear on the best uses of prevention resources to protect adults with mild ID and families from the tragedy of suicide.

The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) defines ID to be present when an individual has an intelligence quotient (IQ) score of 70 or below (as cited in American Psychiatric Association, 2013, p. 37). However, the current diagnostic criteria mainly focus on adaptive functioning and the ability to carry out ordinary living skills. The American Association of Intellectual and Developmental Disabilities notes an IQ score of 70 indicates a limitation in intellectual functioning (Schalock, Borthwick-Duffy, Bradley, Buntinx, Coulter, et al., 2010). This group is categorized as mild ID and constitutes the majority of individuals with ID (Harris, 2006). Mild ID is not organic or related to any genetic or physiological factor. Mild ID is marked by slowed cognitive development resulting in decreased intellectual functioning (Horowitz, Kerker, Owens & Zigler, 2000). Despite this, developmental levels of conceptual, social, and daily living skills enable those affected to fulfill basic requirements of community living with little or no support. There are no distinct physical characteristics associated with mild ID, which likely contributes to the lack of recognition as a population bearing suicide risk. The prevalence of ID is estimated to be just over 10 cases per 1,000 individuals (Maulik, 2011, p. 422).

Suicidal behavior describes acts or experiences that do not involve intentionally ending one’s life, including suicidal ideation (thoughts of taking one’s life), devising a suicide plan (detailing how, when, and where suicide may occur), and suicide attempt (unsuccessfully carrying out a potentially fatal suicide plan with the intent of dying) (Nock, Borges, Bromet, Cha, Kessler & Lee, 2008). While suicidal behaviors may not include an intent to die or intentionally result in death, they are considered direct drivers of suicide that facilitate the onset of more life threatening acts (Tucker, Crowley, Davidson & Gutierrez, 2015). Suicidal behavior is now seen as the outcome of the process in which the likelihood of potentially lethal self-harm
builds over time as stressors overcome the individual’s ability to abstain from such behavior (Joiner, 2005; O’Connor, 2011). Suicidal behavior is generally assessed in terms of risk factors, which are individual, interpersonal, and psychosocial characteristics associated with suicide (Goldsmith, Pellmar, Kleinman, & Bunney, 2002). Suicide risk factors are interrelated and vary in modifiability, with some being long term or life-long and others related to short-term, non-static conditions (Goldsmith et al., 2002). While some suicide risk factors are fixed, suicide risk itself can be a one-time occurrence or a recurrent state brought on by specific individual stressors that overwhelm one’s coping ability (Joiner, 2005).

Suicidal behavior is experienced by a significant number of U.S. residents. The National Survey on Drug Use and Health (NSDUH) found the following rates of suicidal behavior among adults (18 or over) in 2008-09 (as cited in Crosby, Han, Ortega, Parks & Gfroerer, 2011, p. 1):

- An estimated 8 million had suicidal thoughts in the past year
- An estimated 2 million made a suicide plan in the past year
- Approximately 1 million made a suicide attempt

It is uncertain if any adults with mild ID participated in the survey conducted by the NSDUH. In addition, there is no basis for estimating the level of representation by this population in the statistics above.

Intellectual disability and suicidality are two areas well understood separately by interested professionals and advocates, but less understood as co-occurring disturbances. This may be due in part to the history affecting both fields. As recently as thirty years ago, it was believed that individuals with ID had a decreased likelihood of suicide because intellectual impairment supposedly acted as a buffer against such behavior (Smiley, 2005). In a prominent text on suicide prevention, the only reference to risk in this population is to note a “particularly low rate of suicidal acts” (Maris, Berman & Silverman, 2000, p. 331). In any case, no evidence has ever come forth to indicate that ID provides protection against suicidal behavior in any way (Smiley, 2005). On the contrary, research shows individuals with ID experience suicidal ideation and complete suicide at rates similar to the general population (Merrick et al., 2005; Patja, Ivanaïnen, Raitasuo & Lonnqvist, 2001).

Low IQ has been linked to suicidal behavior in two large longitudinal studies of Swedish men (Batty et al., 2010; Gunnel, Magnusson & Rasmussen, 2005). The studies measured low IQ by an average score on written tests of verbal, logical, spatial, and technical abilities. In one of the studies, Swedish Army inductees (over 24 years of age) scoring low on IQ tests were nine times more likely to have a psychiatric hospital admission due to suicidal behavior compared to those with higher IQs. In the second study, the risk of suicide was found to be two to three times higher in those with lowest test scores. The authors of both studies attributed the increased risk of suicide in men with low IQs to poorer problem-solving abilities and fewer coping skills when faced with severe stress and crises. An earlier study with Swedish male psychiatric patients hospitalized after a suicide attempt, showed significantly lower scores on general intellectual tests and measures of verbal and design fluency (Bätrfai, Winborg, Nordstrom & Asberg, 1990).
These findings are pertinent to understanding one possible source of suicide risk in adults with mild ID.

Intellectual disability encompasses many levels of functioning. Mild ID is not a specific suicide risk factor in adults, but many have a greater exposure to factors strongly associated with suicidality because of this disability. Individuals with mild ID make up the majority of those with ID and have the highest level of functioning within this population. They are reasonably able to live independently, blend into the community, and meet most daily life needs. Yet, many have problems with basic learning and comprehension, judgment, communication, and social relationships. These shortcomings may significantly impact emotional wellbeing. A British study containing a large sample of men and women with mild ID reported high rates of emotional distress related to life’s challenges (Maughan, Collishaw & Pickles, 1999).

Adults with mild ID have been found to suffer detrimental psychological effects when caught up in highly stressful social interactions (Hartley & MacLean, 2009). Social relationship issues in adolescence may arise as rejection and stigma in school, within the community, and even in the home. Like most young people, adolescents with ID struggle with acceptance and simply want to fit in (Zic & Igrić, 2001). The quality of social connectedness is seen as bearing strongly on suicide risk reduction (Centers for Disease Control and Prevention, 2009). Those with mild ID may also have less access to community support or may be less able to use this support effectively to maintain social relationships. Although individuals with ID have been shown to be at increased risk for suicidal behavior, the link between ID and suicide risk is not commonly acknowledged or empirically studied (Luiselli, MaGee, Graham, Sperry, & Hauser, 2008; Lunsky, Raina, & Burge, 2012; Menolascino, Lazer, & Stark, 1989). The parameters typically recorded by coroners and medical examiners do not include ID and are generally limited to gender, age, race, and ethnicity in the U.S. (Drapeau & McIntosh, 2015). Accurate numbers or even estimates regarding completed suicides by those with mild ID within the U.S. are unknown.

There is no mention of ID-affected individuals being an at-risk population in most major suicide prevention publications, including the National Strategy for Suicide Prevention: Goals and Objectives for Action (Office of the Surgeon General and National Action Alliance for Suicide Prevention, 2012). This omission is also present at the international level. The World Health Organization’s (2014) Preventing Suicide: A Global Imperative does not cite those with ID as a group at risk of suicide. Even the developmental disability population in general has not given much attention in suicide prevention (Salvatore, 2012). Specific populations designated to be at high risk include Native Americans, those with serious mental illness, those who abuse alcohol and other substances, and those with co-occurring psychiatric and addiction disorders (National Center for Injury Prevention and Control, 2001). Data on persons with ID is not recorded by the National Violent Death Reporting System (NVDRS), a multi-state system that collects data on violent deaths such as homicides and suicides (Steenkamp, Frazier, Lipsky, DeBerry, Thomas, et al., 2006).

Not recognizing the risk factors of those with ID ultimately lessens the likelihood of identifying suicidality within this population. This article explores links between ID and suicidal behavior, and calls for greater attention to adults with mild ID in suicide prevention research, planning, and programming. At-risk populations need better access to community services and resources.
What We Do Not Know

Meaningful suicide prevention usually begins with a baseline awareness of the problem within a particular population or community. This promotes concern and eventually action. The prevention process rests on the availability of data on the incidence, prevalence, and demographics of suicide. The following key parameters remain unknown, but may provide insight into completed suicide by adults with mild ID:

- Yearly total of reported suicides involving adults with mild ID at state or national level in the U.S.
- Rate of suicide in the population of adults with mild ID (Suicides/100,000 Persons)
- Gender breakdown, age ranges, and ethnicity of the suicide decedents with ID
- Co-occurrence of mental illness and substance abuse in suicide decedents with ID
- Suicide ranking as a cause of death among persons with ID

Limited demographic data is available in various research reports. However, numbers are not sufficient enough to answer questions such as:

- What percentage of all U.S. adult suicides involves adults with mild ID?
- Is the incidence of suicide among adults with mild ID increasing, decreasing, or remaining stable?
- Do males account for the overwhelming majority of suicides among adults with mild ID, as seen in the general population?
- Does suicide among adults with mild ID cluster in any specific age range and does it rise with age?
- Is there any correlation between race and ethnicity among adults with mild ID who have died by suicide?
- What is the incidence of suicidal behaviors such as ideation, suicidal plans, and suicide attempts among adults with mild ID?
- How does the presence of mental illness and/or substance abuse affect the risk of suicidal behavior in adults with mild ID?

Questions like these are readily answered in relation to the general U.S. population at the county, state, and national levels, and for subpopulations (i.e., racial and ethnic groups). If data were
available for adults with mild ID, comparisons could be made and objectives and priorities for suicide prevention programs could be established.

What We Know

A review of the current literature found higher rates of suicide risk in those with ID than in the general population, but lower rates of suicide mortality (Giannini, Bergmark, Kreshover, Elias, Plummer et al., 2014). This relays that individuals with ID are just as vulnerable to suicidal ideation and behaviors as those without such a disability, and may even be at greater risk. Lunsky’s (2004) survey of a Canadian community sample of persons with ID found 23% had experienced suicidal ideation and 11% reported a history of suicide attempts. These levels are significantly higher than those recorded in a large national survey of U.S. adults. Data within the U.S. found less than 4% of respondents reported suicidal ideations in the past year and less than 1% reported a suicide attempt within the same time frame (National Center for Injury Prevention and Control, 2015).

There is further documentation of the incidence of suicidal behavior among persons with ID. A Canadian study of psychiatric inpatients with ID reported suicidal ideation as the most common reason for admission, accounting for half of all intakes (Burge, Ouellette-Kuntz, Saeed, McCreary, Paquette et al., 2002). Another study using a Canadian sample, reported a third of respondents with ID felt life had no purpose or meaning. These individuals were vulnerable to psychosocial and environmental factors with established links to suicidal behavior (Lunsky, 2004).

Suicidality in persons with ID has not been extensively studied so little is known about suicide plans and methods used in this population (Dodd, Doherty & Guerin, 2016). Suicide attempts employing means such as hanging, stabbing, jumping, or drowning have been found in individuals with IQs below 50 (Hurley, 2002; Walters, 1990). This may reflect the accessibility of particular means to such suicidal individuals, playing a role in the selection of a suicide method (Yip, Caine, Yousuf, Chang, Wu et al., 2012). Choice of means by persons with ID differs significantly from means used to complete suicide in the general U.S. population. Firearms accounted for more than half of all U.S. suicides (Parks, Johnson, McDaniel & Gladden, 2014). The lethality of methods used to attempt suicide, such as hanging, drowning, and stabbing have been associated with the likelihood of a subsequent fatal attempt (Runeson, Tidemalm, Dahlin, Lichtenstein & Langstrom, 2010) in non-ID populations. Suicide methods in the general population vary by gender. Males often opt for more lethal means (e.g., firearms) in which the choice for upper extremity shots and a reduced chance of being rescued exist (Mann, 2002). Females usually resort to less lethal methods like pills and hanging (Tsirigotis, Gruszczynski, & Tsirigotis-Woloszczak, 2011).

Depression has long been noted as a risk factor for suicide. Research indicates adults with ID have similar or even higher rates of depression than those not diagnosed with ID (Mileviciute & Hartley, 2015; Smiley & Cooper, 2003). McBrien (2003) noted that depression seemed to occur at rates similar to those in the general population. Two issues related to diagnosing depression in adults with ID, include unsuitable diagnostic criteria and a lack of valid rating scales. Additionally, individuals with ID may present symptoms of depression differently. Symptoms may include maladaptive behaviors such as aggressiveness, acting out, somatic complaints, psychomotor agitation, withdrawal, irritability, self-injury, and temper tantrums.
This presentation of behavioral symptoms is more likely to manifest as the ID becomes more severe.

The same way social and cognitive processes mediate depression in individuals without IDs, they also lead to depression in those with ID (Dagnan & Sandhu, 1999). Individuals with ID often experience a negative self-concept, decreased social support, feelings of hopelessness, and negative social comparisons when comparing themselves to others. These cognitive and social experiences increase the risk for depression, which may increase the risk for suicidal attempts and completed suicide.

Individuals with ID are at risk of suicide throughout their lives (McGrath, Jones & Hastings, 2010). Suicide risk factors such as depression, family discord, and physical and sexual abuse are more common in the ID population than the general population (Gianni et al., 2010). Like anyone, adults with ID may be exposed to several risk factors for suicide. These risks include: interpersonal stressors, depression and other psychiatric disorders, substance abuse, serious financial and legal issues, loss and bereavement, job and housing problems, and other adverse circumstances (Myrbakk & Tetzchner, 2008). However, adults with ID may have fewer protective factors (e.g., resilience, coping skills, problem solving, and help-seeking) than adults without ID (Lunsky et al., 2012). This is consistent with findings showing adults who frequently utilize mental health crisis services are six times more likely to have an ID than adults who do not frequently use these services (Passic, Russo & Roy-Byrne, 2005). In fact, those with mild to moderate ID may be at the highest risk of suicide, particularly when cognizant of their intellectual limitations (Jahoda, Wilson, Stalker, & Cairney, 2010; Nezu, C., Nezu, A., Rothenberg, Delli Carpini, & Groag, 1995). This is consistent with the finding that higher functioning is a suicide risk factor in adults with mild ID (Merrick, Merrick, Lunsky, & Kandel, 2005).

**How Risk May Give Way to Action**

The Interpersonal Psychological Theory (IPPT) offers a model of suicidal behavior that accounts for how the natural resistance to lethal self-harm may be overcome when a suicide attempt occurs (Joiner, 2005; Van Orden, Witte, Cukrowicz, Braithwaite, Selby et al., 2010). The IPPT is widely accepted within the field of suicide research and is gaining a strong base of empirical support. It theorizes that a suicide attempt may occur if an individual has both an intense desire to die and the capacity for self-harm (Joiner, 2005). Those with ID desire social inclusion and a network of friends (McConkey, 2007). Individuals with ID may feel burdensome to family members (Kiddle & Dagnan, 2011) as well as to others early in life. This perception could be amplified by school and job problems that emerge across the lifespan. Difficulty complying with social norms can lead to feelings of disconnection from peers and family. Inability to meet parental expectations or equal the achievements of siblings or peers may produce negative feelings in an individual with ID. This may lead them to believe they are letting down the people who matter to them. Negative feelings can result in the manifestation of suicidal behaviors. Lunsky (2004) found individuals with ID who demonstrated suicidal behavior reported higher levels of loneliness, lower levels of family support, and reciprocity in social relationships.

According to the IPPT, negative self-perceptions, low self-image, and negative social comparisons can produce a desire to die. However, these factors alone are not sufficient enough
to generate suicidal behavior (Van Orden et al., 2008). Attempting suicide also requires the ability to engage in potentially fatal self-harm, which requires an elevated tolerance of pain, diminished fear of severe injury, and reduced fear of death (Joiner, 2005). These acquired capabilities are established over time through exposure to hurtful, painful, or violent experiences (Joiner, 2005). A background involving self-injury, physical abuse or sexual abuse, and bullying creates an increased risk for potentially lethal self-harm (Joiner, 2005; Van Orden et al., 2010). A longitudinal study of non-suicidal self-injury in adults with ID reported a prevalence rate of almost 5% (Cooper, Smiley & Allan, 2009). Self-injury has been found to increase the odds of suicide threats and attempts in individuals with ID (Lunsky et al., 2012). All forms of abuse are encountered among persons with ID (Thornberry & Olson, 2005). Some evidence suggests both children and adults with ID have a higher risk of being bullied and engaging in bullying than those without ID (McGrath, Jones & Hastings, 2010).

To-date, there does not appear to have been any research of the applicability of the IPPT to the ID population. However, the theory appears to offer some understanding as to how serious suicidal behavior may arise in persons with ID. When an intense desire to die coincides with an acquired capability for possibly fatal self-harm, the stage is set for a suicidal act. The IPPT’s three components: 1) belief that one is a burden, 2) perception that one is socially disconnected, and 3) presence of experiences conducive to acquiring the capability for lethal self-harm (Joiner, 2005). These three components provide a foundation for the development of screening tools that assess the presence and severity of suicide risk in persons with ID.

Another area for study is the transition from suicidal ideation to suicide attempt in persons with ID. Limited research has been conducted on this in any population (Nock et al., 2008). A general mechanism for this occurrence has been described in “The Three-Step Theory of Suicide” (3ST) (Klonsky & May, 2015). It proposes an “ideation-to-action” framework in which thoughts of ending one’s life may lead to a deliberate, lethal effort to do so. The 3ST proposes that moderate suicidal ideation may arise when an individual experiences both psychological pain and hopelessness. The 3ST posits that this progression to stronger suicidal ideation occurs when the individual’s social roles, interests, connectedness to others and sense of purpose in life is unsatisfactory (Klonsky & May, 2015). All of which may be associated with the presence of ID. When someone enduring psychological pain loses social connectedness, the severity of suicidal ideation increases and a clear desire to die may emerge. However, as previously noted, an intense desire to die is a necessary but not sufficient condition for suicide; there must also be a capability to actually attempt suicide.

Psychological theories of suicide, (e.g., IPPT and 3ST), show that suicidal ideation and action may increase in individuals with an inability to manage negative effects. The capacity to effectively deal with such experiences is known as emotional intelligence (EI) (Goleman, 1995). Borderline ID may impact EI and resilience. Emotional intelligence has been shown to mediate how threats and challenges are perceived and the manner in which an individual responds to those perceptions (Schneider, Lyons, & Khazon, 2013). Those with an impaired ability to perceive, integrate, comprehend, and manage emotions would be at greater risk for suicidal behaviors, especially when faced with stressful life events, feelings, or personal beliefs.
Chronic Suicidality and Intellectual Disability

The form of suicidality discussed above is known as acute suicidality. It involves a trajectory that may begin with thoughts of suicide and result in the intent and capability to take one’s life. It usually follows an overwhelming psychosocial stressor and indicates imminent danger to the individual. This may occur as a single episode, subside when it does not proceed to a fatal attempt, or can recur in response to new or re-emerging trigger or event. This is often due to a lack of appropriate coping skills and problem-solving resources. Another form of suicidal behavior that might appear in persons with ID is known as chronic suicidality.

Chronic suicidality is the persistent, frequent, and repetitive expression of suicide threats without intent to die. This is either done as a means of coping or for purposes of secondary gain (Paris, 2006). Threats are usually dramatic, contingent or conditional in nature, and self-centered (Lambert, 2002). They may be expressed in the form of “if you don’t [e.g., admit me to the hospital], I will kill myself.” These threats may be associated with no specific plan to complete suicide, a vague plan (e.g., simply threatening to hurt themselves), a specific plan with no means (e.g., threatening to shoot themselves without any access to firearms), or vague means (e.g., implying self-harm). Such threats are used to achieve a sense of control (Paris, 2006). If the threats prove insufficient they may give way to low-risk acts of self-injury, but with no suicidal intent.

Chronic suicidality can create both the desire to die and the ability for lethal self-harm. It may cultivate the capability for suicide gradually through recurring suicide threats, suicidal acts, and the frequent thought given to them. This mental practice may reduce resistance to potentially fatal self-harm (Joiner, 2005). Provocative suicidal posturing (e.g., walking by railroad tracks or highways) may also be an expression of chronic suicidality. These may also increase the capacity to complete suicide by inuring the individual to the prospect of completing suicide. One study (Walters, Barren, Knapp & Boden, 1995) reported on a sample of 90 adolescents with mild to moderate ID that exhibited behaviors that suggested possible contingent suicidality:

- Verbal statements about killing oneself without expressed intent to do so
- Voicing intent to harm oneself with no effort to do so (i.e., making a statement about a possible suicide intent without having access to, or seeking, means to inflict self-injury)
- Potentially harmful actions with or without expressions of intent (e.g., walking along a road or railway, standing on a bridge, or seeking pills or other lethal means) (pp. 87-90).

Parasuicidal behavior or deliberate suicide attempt-like behavior without the intent to die has been cited in cases of adults with both mild and moderate ID (Luiselli, McGee, Graham, Sperry & Hauser, 2008). Lunsky’s study (2004) found so-called “suicide gestures” present in the sample of individuals with ID. Suicide gestures (now known as parasuicidal behavior) are threats, plans, and actions that allude to suicide, but appear unlikely to result in death; they are predominantly communicative (Heilbron, Compton, Daniel & Goldston, 2010). Data from the 2007 Adult Psychiatric Morbidity Survey in England indicated that persons with borderline
intellectual functioning were more likely to report to having engaged in suicidal acts without intent to die than those without such limitations (Hassiotis, Tanzarella, Bebbington & Cooper, 2011). Chronic suicidality involving contingent suicide threats is a maladaptive coping mechanism that is by no means restricted to persons with ID. It represents another area for further research and therapeutic intervention.

Need for More Research

Although the literature is growing more extensive, exploration of the relationship between ID and suicide is imperative (Merrick et al., 2005). To date, research has typically been qualitative; comprised of small samples with a lack of focus on demographics and psychosocial variables associated with suicidal behavior (Lunsky et al., 2012). More studies related to children and teenagers with ID can be found compared to those focused on adults (see e.g., Hardan & Saul, 1999; Huntington & Bender, 2014; Kaminer et al., 1987; Kiddle & Dagnan, 2011; Ludi et al., 2012; McBride & Siegal, 1997; Merrick et al., 2005; Wallander et al., 2006; Walters et al., 1995). Suicide risk in older adults with ID does not appear to have received significant attention despite the fact that older adults have high rates of suicide (Conwell, Van Orden, & Caine, 2011). One mortality study among older individuals (average age 66) with ID, found suicides among the sample numbering almost 3,000 in the State of New York (Janicki, Dalton, Henderson & Davidson, 1999).

Some research projects that aim to broaden knowledge of suicidal behavior in individuals with ID are currently underway. A study by Stuart Wark (2016) and colleagues of the University of New England in Australia involves a comprehensive, self-report survey of staff in caregiving and service delivery relationships with individuals with ID. This study focused on the experiences of suicidal behavior among clients. A study of this nature will shed light on the prevalence of suicidal behavior in a sample of persons with ID receiving services. A greater gap in knowledge is the number of adults with mild ID who are victims of suicide. As noted above, the nature of a disability is not noted on death certificates, which serve as the major source of demographic data on suicides in the U.S. Also many suicide victims with mild ID may not be recognized as disabled. Psychological autopsy surveys are a research approach that could potentially be used to identify persons with mild ID in a given sample of suicide decedents. A psychological autopsy study involves structured interviews of family members and others close to a suicide victim to retrospectively identify factors associated with the suicide (Isometsa, 2001). Though widely accepted and used in suicide research, some methodological concerns have been raised. This is particularly true in regard to the use in finding evidence of mental illness in the majority of suicide victims (Hjelmeland, Dieserud, Dyregrov, Knizek & Leenaars, 2012; Pouliot & De Leo, 2006). Post-mortem interviews could yield valuable data when determining how many persons with mild ID die by suicide.

More research attention is needed in the delineation of protective factors (i.e., buffers) against the onset and progression of suicidal behavior in adults with mild ID. Protective factors for the ID population have not been as well studied as suicide risk factors. For example, Lunsky (2002) identified loneliness, stress, anxiety, depression, less social support than other individuals, and thinking that life is not worth living as being associated with suicidal ideation and parasuicidal behavior in adults with ID. Mitigating some of these factors, such as reducing stress, depression, and anxiety might reduce suicidal behavior. Additionally, fostering greater
social support and providing reasons for living may also lessen the likelihood of suicidal events and behaviors. Identifying and understanding protective factors against suicide within this population is necessary.

A critical need exists for suicide risk-screening instruments for individuals with less than mild ID (Ludi et al., 2012; Mollison, Chaplin, Underwood & McCarthy, 2014). One obstacle to effective assessment is an affected individual’s difficulty in recall past thoughts and occurrences (Ludi et al., 2012). Diagnosis and treatment in persons with ID by medical providers are often hampered by difficulties in eliciting complete medical histories due to cognitive limitations (Horowitz et al., 2000). Accurate identification of past suicidal behavior and current warning signs may be similarly affected by ineffective communicative abilities. Assessing risk in adults with mild ID might be accomplished with available tools, but this would need to be confirmed through evaluation. A call for the revision of suicide risk assessments is underway to give more weight to an individual’s risk in in regards to sub-populations and to what is known of risk in other individuals within that same population (Panini, Murrie & Silverman, 2015). As noted earlier, it would be particularly helpful to have Joiner’s (2005) or Klonsky and May’s (2015) theoretical models of suicide tested within a mild ID adult sample.

Further study regarding stigma and the affects on adult with mild ID and families is needed. Persons with ID experience social exclusion and endure stigma in the form of abuse, discrimination, prejudice, and stereotyping (Ali, Hassiotis, Strydom & King, 2012). In addition to feeling external stigma, persons with ID may internalize this awareness of stigma and self-stigmatize (Ali et al., 2012). In individuals with serious mental illness, the effects of stigma in day-to-day life generate low self-esteem and feelings of shame and hopelessness, which can deter seeking assistance (Rusch, Angermeyer & Corrigan, 2005). This has been found to lead to a concealment of the disability to avoid being labeled as mentally ill and averting the resulting stigma (Oexle, Ajdacic-Gross, Kilan, Muller, Rodgers et al., 2015). Secrecy in response to perceived stigma has been linked to hopelessness, social isolation, and the occurrence of suicidal ideation in individuals with psychiatric disorders (Oexle et al., 2015; Xu, Muller, Heekeren, Anastasia, Sibyle et al., 2016). A similar dynamic may be present among individuals with ID who are conscious of being stigmatized and may cope by denying or minimizing the disability (Ali et al., 2012).

Understanding the relationship between mild ID and suicidal behavior in adults would be enhanced by applying a viable theory such as the IPPT or 3ST to this specific at-risk population. This would be more beneficial than simply conducting an empirical study of suicidality in adults with mild ID, which would only identify statistically significant variables in a theoretical context. Such studies 1) Do not readily translate into any broader theoretical perspectives, 2) May be related back to a seemingly relevant theory but not associated with the testing of hypotheses drawn from any particular theory, or 3) be explained by a narrow, population-specific “micro-theory” (Rogers & Lester, 2010). Theories like the IPPT and 3ST increase understanding of suicidal behavior in adults with mild ID and may contribute to understanding of suicidal behavior in the population as a whole.
Suicide Prevention for Adults with Mild ID

Suicide prevention is about abating factors that increase suicidality risk, while strengthening factors that decrease the onset and progression of suicidality (Office of the Surgeon General, 2012). The Public Health Model is widely accepted as the optimal approach to attaining and maintaining reductions in suicide morbidity and mortality (Office of the Surgeon General, 2001). This population-based model is applicable to any group and consists of five steps: (1) define the problem; (2) identify risk and protective factors; (3) devise interventions at the community or individual levels; (4) put interventions in place or into practice; and (5) evaluate model effectiveness. In regard to adults with mild ID, discernible progress has only been made within the first two steps.

There has been some success in identifying suicidal risk and behavior in adults with mild ID. However, in public health terms, problem definition also involves ongoing surveillance of incidence and prevalence across larger samples on an ongoing basis. Without a national database like those that exist in other countries, this is not likely to take place in the U.S. A number of risk and protective factors for suicide in adults with mild ID have been distinguished, from a small pool of research studies. It is probable that many general population risk factors (i.e., job or financial loss, serious physical illness, and impulsivity) may have considerable influence in adults with ID. However, it does not appear to have been studied. Overall, there is only limited research evidence to guide suicide prevention strategy and programming for persons with ID (Dodd et al., 2016).

Progress related to suicide prevention in adults with mild ID in the other steps of the public health model remains to be seen. No suicide prevention interventions for adults with mild ID (Step 3) could be located, so none have been implemented (Step 4) or evaluated (Step 5). Potentially viable interventions have been proposed. Families and providers could be educated about suicidality in adults with mild ID (along with training on responding to suicidal crises in this group. Programs enhancing family support and social opportunities could be developed. Community health education informing adults with mild ID on recognizing negative feelings that may lead to suicidal thoughts (as well as how to seek assistance) could be initiated (Lunsky, 2004). Another prevention method may be providing sources of peer support for adults with mild ID that may not otherwise be available in the community (Hurley, 2002). Consideration must also be given to adapting suicide prevention programs in tandem with other groups to fit the needs of this population.

In practice, suicide prevention is driven by at least a nominal level of awareness of the losses incurred by the community. The lack of information on the incidence of suicidal behavior among adults with mild ID has held back interest in suicide prevention within this population. At the same time, neither the fields of ID or suicide prevention have claimed ownership of suicide prevention in relation to adults with mild ID. Suicide risk among adults with mild ID has yet to concern the suicide prevention movement or the ID field in the U.S. This will not change until more information regarding suicide and ID is gathered and awareness of the issue is raised.
Concluding Remarks

This article examined suicide risk and behavior in adults with mild ID from a suicide prevention standpoint. Literature on suicidality in adults with mild ID is growing, but is not extensive. Nonetheless, the literature reviewed clearly establishes the need for increased attention to suicide prevention among members of this population. As evidenced by major planning and strategy documents, the suicide prevention field fails to recognize adults with mild ID as an at-risk population. Gill (1992) emphatically pointed out this deficit almost twenty-five years ago: “As long as society supports suicide prevention services for anyone, it is morally and legally obligated to extend these services to people who are disabled” (p. 53). The needs of adults with mild ID in other areas of their lives would appear to influence how they respond to suicidality. It may also affect how the community accommodates the disabled in prevention, intervention, and post-intervention services related to suicide risk.

Adults with mild ID may have significant exposure to a wide range of known suicide risk factors. They may be more negatively affected by abuse and social isolation compared to the general population. Suicide risk factors within this population may be compounded by the presence of fewer and weaker offsetting protective factors and buffers. More must be learned about how risks and protective factors influence suicidal behavior in this population.

The use of new theories incorporating factors that may be found among adults with mild to moderate ID must be used. The IPPT of suicide (which is gaining research support) represents a context for studying and understanding how adults with mild ID acquire suicidal intent and capability to act on that intent. The 3ST of suicide appears pertinent to elucidating how adults with mild ID transition from suicidal ideation to attempting suicide when beset by psychological pain, hopelessness, and inadequate social support. Both theories identify a strong belief of being a burden to others, a profound sense of being socially isolated, and life experiences that may lower resistance to lethal self-harm.

The concepts of chronic suicidality and contingent suicide threats may enhance the understanding of persistent expression of suicide threats, vague suicide plans, and parasuicidal behavior in adults with mild ID. Such suicidal communications may be interpreted as indicative of potential imminent dangerousness. Misinterpretation may lead to unnecessary, traumatizing contact with crisis services and inpatient psychiatric admissions. Such contact may increase suicide risk in persons within this population, rather than reduce it.

Current research focusing specifically on adults with mild ID must be supplemented by further studies. However, available research sufficiently demonstrates that persons with this disability must be on the suicide prevention agenda. Research also shows that suicide prevention must be a concern of those who care and advocate for the ID population. Evidence-based suicide risk screening and assessment methods pertinent to the needs of this population are not available. Development is dependent on further research in this area. The psychological autopsy appears promising as an instrument for determining how many completed suicides had a mild ID.
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References


Intellectual disability is a term used when a person has certain limitations in mental functioning and in skills such as communicating, taking care of him or herself, and social skills. These limitations will cause a child to learn and develop more slowly than a typical child. Children with intellectual disabilities (sometimes called cognitive disabilities or mental retardation) may take longer to learn to speak, walk, and take care of their personal needs such as dressing or eating. They are likely to have trouble learning in school. Sometimes an intellectual disability is caused by abnormal genes inherited from parents, errors when genes combine, or other reasons. Examples of genetic conditions are Down syndrome, fragile X syndrome, and phenylketonuria (PKU).