The role of meaning in life as a protective factor in suicidal ideation among elderly men with physical illnesses

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Abstract

The highest suicide rates are among elderly men. The aim of the present study is to extend previous findings by focusing on meaning in life as a protective factor for suicidal ideation among elderly men. Self-report measures were administered to 170 elderly men aged 65 and over in community. Meaning in life and physical illness predicted suicidal ideation among elderly men. Physical illness moderated the association between meaning in life and suicidal ideation. In the young-old group (ages 65–74), meaning in life predicted suicidal ideation among those who reported higher rates of physical illness. This moderation effect was not found among the older group (aged 75 years and older). The findings of this study highlight the importance of age-differences in studying suicidal ideation among elderly men. Our findings emphasize the importance of cultivating and maintaining meaning in life when coping with chronic illnesses and point at meaning in life as a goal in therapeutic interventions designed to reduce suicidal ideation among elderly.

Keywords Aging · Elderly men · Meaning in life · Physical illness · Suicidal ideation

Introduction

Life expectancy has continuously increased over the last century (Crimmins, 2015), due to declining mortality rates at older ages (Rau et al., 2008). This trend has led to the expansion of research on psychological and social issues in old age. One concerning issue is that of suicide among seniors. In developed countries, older men aged over 65 have the highest suicide rate of all ages (World Health Organization, 2014). Despite high rates of completed suicides, particularly among older men (World Health Organization, 2014), the subject is still not sufficiently studied. One of the challenges in studying and treating late-life suicide in older men is attributed to the fact that older men are less likely to share their emotional distress and tend to deny emotional pain and suicidal thoughts (Bland, 2012; Conte et al., 2015; Denneson et al., 2010).

It is important to distinguish between suicidal ideation and suicidal behavior. Suicidal ideation is much more common and does not necessarily lead to suicidal behavior (e.g. Miranda et al., 2014). However, there is value in studying suicidal ideation, as it usually indicates severe emotional distress and suicidal risk. Accordingly, and considering the continuum that exists between suicidal ideation and suicidal behavior (Sveticic & De Leo, 2012), research on suicide in non-clinical populations attempts to understand what factors are associated with suicidal thoughts.

Factors Associated with Late Life Suicide

Late-life suicide is a distinctive phenomenon: the nature of suicidal behavior, risk factors, and protective factors are partially different from other age groups, and require an integrated approach (Conwell, 2014). Several factors were found to be relevant to the understanding of suicide in this population. Previous research indicates that health conditions and their consequences, as well as mild cognitive decline, are related to suicidal ideation and behavior (Conwell et al., 2011; Dombrovski et al., 2008). In addition, social and psychological factors are also related to suicide among elders. Generally, absence of conjugal relationships, numerous losses, loss of friends, depression and loneliness are all associated with suicide in later life (Conwell, 2014). These findings are consistent with the

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interpersonal theory of suicide (Joiner, 2005), which states that suicidal ideation may arise as a result of thwarted belongingness or when the person perceives himself as a burden on others. Indeed, perceived burdensomeness was found to be associated with suicidal ideation among elderly (Cukrowicz et al., 2011).

Even though health decline as well as deaths of friends and loved ones are unavoidable in old age, it is important to examine factors which promote wellbeing despite these painful and immutable circumstances. Therefore, research on late life suicide should consider and examine not only risk factors, but also protective factors, as well as the dynamics between risk and protective factors. The present study adopted a biopsychological approach, investigating the combined role of physical health and meaning in life in predicting suicidal ideation among older men from two different age groups in the community.

Variability of Gender and Age in Suicide in Old Age

Studies have consistently found that suicide rates vary with gender and age. For example, a recent report of the WHO indicates that in high-income countries men die from suicide at a rate three times higher than women (World Health Organization, 2014). This disparity may be explained by the fact that when attempting suicide, men tend to use more lethal means such as firearms, compared to women who tend to use means (e.g., drug poisoning), that do not necessarily lead to death (Callanan & Davis, 2012).

Most studies on suicide in old age are based on mixed samples of men and women, or mostly women. Research on suicide in men is relatively infrequent and particularly challenging, perhaps because of their tendency to deny or conceal their emotional distress (Bland, 2012; Conte et al., 2015; Denneson et al., 2010). Since older men constitute the highest risk group for suicide in the Western world, it is important to increase our understanding of the specific factors associated with suicide among this group and, accordingly, the current study deliberately focuses on them.

Age is also an important factor in late-life suicide (Conwell et al., 1998). Suicide rates are highest in men over age 65, with further rate increase after age 75 (World Health Organization, 2014). Although risk and protective factors, as well as the dynamics between them, are assumed to vary with age (Conwell, 2014; Van Orden & Conwell, 2016), only a few studies on suicide have examined age-related differences in old age and most of them referred to people aged 65 and above without considering age-related variance. Therefore, in order to adopt a more specific approach, in the present study two age groups – i.e., young-old (aged 65–74) and old-old (aged 75 and above) – were sampled and investigated.

Physical Illness As A Risk Factor in Late Life

Many older adults cope with disease and general decline in health, and, therefore, health status is a major issue in daily life. Physical illnesses and health difficulties may lead to deterioration of functioning, chronic or/and acute pain, increase in interpersonal dependency, and decrease in quality of life (Arslantas et al., 2009; Khaje-Bishak et al., 2014). Accordingly, decreased vision, oncological and neurological diseases were found to increase suicidal risk in old age, especially among older men (Johnson et al., 2019; Waern et al., 2002), as well as medical or surgical treatment in the past (Ho et al., 2014). Moreover, the rate of decline in quality of life as a result of physical illness heightened suicidal ideation regardless of the severity of disease (Kwon & Kim, 2012).

The relationship between physical illness and suicidal ideation may be explained in several ways. Previous studies (e.g. Padayachey et al., 2017) have emphasized the connection between poor physical health and depression. Number of chronic diseases, cognitive decline, loss of abilities, dependence on others, and functioning disabilities predicted depression in old age (Veronese et al., 2017; Vink et al., 2008). In addition, coping with physical impairment may have effects on the nature of close relationships, increasing need of assistance and emotional support, alongside absence or partial supply of these needs. In addition, it may impair the ability to adjust and cause emotional distress (Cornwell & Waite, 2009; Holm et al., 2014). Many physical changes occurring in old age influence identity and its integration, self-image, and self-esteem. Therefore, they may lead to unfavorable emotions and perceptions about the future (Orth et al., 2010; Rozario & Derienzis, 2009). Finally, activities in daily living (ADL) impairment and severity of depression have been found to be associated with suicidal ideation and suicide attempts in a sample of geriatric patients (Kim & Lee, 2016).

Meaning in Life As A Protective Factor

Meaning in life is a significant protective factor in the general suicide literature (e.g. Kleiman & Beaver, 2013; Marco et al., 2016), and is defined as one's ability to perceive oneself and the world as worthwhile and to determine a valued life purpose (Steger et al., 2009). According to Erikson's psychosocial theory (Erikson, 1985), successful aging partly involves resolving the psychosocial challenge of striving for ego integrity versus despair, which may include looking back through a person's lifetime, accepting life without regret, and even admitting death peacefully.

In his seminal work, Frankl (1985) argued that humans are characterized by a "will to meaning"—an internal drive to discover meaning and significance in life, with failure to achieve meaning resulting in psychological distress. Every stage of life has its own crises and challenges to be experienced and overcome. Accordingly, in older ages, people may pursue meaning in life differently. Unlike younger people, work and career do not constitute a source of meaning in life, while frequency and quality of interpersonal relationships may occupy a more central place in the life of the elderly (Pinquart, 2002). Older people deal with significant changes in their lives including a range of losses and a gradual decline in functioning. Most of these changes, such as retirement, seem irreversible, and, therefore, have an important impact on a person's identity and reorganization of goals and aspirations in life. Social networks become narrower, and the elderly tend to invest in meaningful relationships (Charles & Carstensen, 2010). Therefore, new sources and roles contribute to the sense of meaning in old age. Accordingly, positive meaning in life among elderly people with chronic diseases was found to be enhanced by family support (Bahitar et al., 2020).

Frankl (1985) assumed that recognition of meaning in life might minimize pathological responses to negative factors and reduce suicide risk. Indeed, previous studies have consistently indicated that meaning in life is a protective factor for suicide, with increase in its search and presence reducing suicidal ideation (Kleiman & Beaver, 2013; Kleiman et al., 2013). Meaning in life is a resource of coping even in the face of extremely stressful situations (Frankl, 1985). A higher sense of meaning in life was associated with lower death anxiety, an association mediated by self-esteem (Zhang et al., 2019). In a sample of mostly older women, meaning in life was found to be negatively correlated with suicidal ideation (Heisel & Flett, 2016; Heisel et al., 2016). Moreover, meaning in life in old age was found to be associated with a lower level of depressive symptoms (Van Orden et al., 2012). These findings highlight the need to examine the role of meaning in life during coping with physical illnesses in old age.

The Present Study

The goal of the present study was to examine the association between meaning in life and suicidal ideation among older men in the community, considering age (i.e., 65–74, 75+) and health status. The following hypotheses were examined:

1. Age will be associated with suicidal ideation; older men will report higher levels of suicidal ideation.
2. Physical illness will be associated with suicidal ideation; higher levels of physical illness will be associated with higher levels of suicidal ideation.

3. Meaning in life will be associated with suicidal ideation; higher levels of meaning in life will be associated with lower levels of suicidal ideation.
4. Physical illness will moderate the association between meaning in life and suicidal ideation; poorer physical health will strengthen the association between meaning in life and suicidal ideation. This hypothesis will be investigated in the whole sample, as well as in two age-groups ('young-old' ages 65–74 and 'old-old' ages 74–94), in order to explore the effect of age on this interaction.

Method

Participants and Procedure

This study was conducted prior to the COVID-19 pandemic. Participants were 170 older men in Israel (age 65–94; M = 76, SD = 8.09) with at least 8 years of education (M = 14.17, SD = 3.73), language at the level of mother tongue and with no significant cognitive impairment (MMSE > 20). Like previous studies (e.g., Heisel & Flett, 2016; Lutzman et al., 2020) participants were recruited through ads on social networks and in retirement homes. Participants volunteered for the study, and no monetary reward was offered for their participation.

The study was ethically approved by the Institutional Review Board. Participants signed an informed consent form. A detailed procedure was designed describing steps to be taken by the research team if a participant's answers indicated suicidal risk. The research team included a psychiatrist who served as a counselor in cases where the participant reported suicidal thoughts, plan, or intent that required further evaluation.

The researcher called potential participants to inform them about the study and to conduct a screening interview. In this conversation, participants were asked several questions formulated according to exclusion criteria. Exclusion criteria were severe physical or mental disability (e.g., quadriplegia or schizophrenia) and custodian or foreign worker as a caregiver.

Following the screening interview, an appointment was set with each participant individually. Data was collected in participant homes. First, the cognitive status was evaluated using the MMSE. Then, participants were asked to fill out the self-report questionnaires. Finally, a debriefing procedure was conducted. During the debriefing, participants were invited to ask questions and share thoughts and feelings about their participation in the study, and were also invited to contact the researcher if they felt the need. In addition, phone numbers of local mental health services were provided to all participants.

Instruments

Beck Scale for Suicidal Ideation (BSS; Beck et al., 1988) is a 21-item self-report questionnaire that assesses current suicidal ideation (items 1–19) and past suicidal behavior (items 20–21). We used this measure to assess suicidal ideation, and therefore only the 19 suicidal ideation items were used. The items are rated on a 3-point scale and total scores could range from 0 to 48. BSS was found to have strong convergent validity and has shown high internal consistency (Beck et al., 1988). Similarly, in the present study, high internal consistency was found (Alpha Cronbach 0.82). Higher scores indicated higher suicidal ideation but there are no specific cutoff scores to classify the severity of suicidal risk (Beck & Steer, 1991). In our sample, like non-clinical samples in previous studies (Lutzman et al., 2020; Miller et al., 2001), the distribution of suicidal ideation was not normal (Kurtosis = 42.29, skewness = 18.78), therefore the variable was transformed into a dichotomous variable: participants with or without some level of suicidal ideation (BSS > 0 vs. BSS = 0) (Lutzman et al., 2020; Miller et al., 2001).

Cumulative Illness Rating Scale (CIRS; Linn et al., 1968) is a self-report scale that quantifies the extent of physical impairment through ratings of illness severity across major organ systems. The total score is derived from ratings of impairment severity in each of 13 body systems using a 5-point Likert scale. CIRS is a widely used, valid and reliable measure of health status in older adults (de Groot et al., 2003; Parmelee et al., 1995).

Meaning in Life Questionnaire (MLQ; Steger et al., 2006) is a 10-item self-report measure of meaning in life. Five items assess search for meaning in life and the other five measure presence of meaning in life. Participants were asked to rate each of the five items on a 7-point Likert scale ranging from 0 (strongly disagree) to 6 (strongly agree). MLQ has shown strong convergent validity and has demonstrated good internal consistency (Steger et al., 2006). MLQ presented high internal consistency among samples of older adults (Hofer et al., 2014; Ju et al., 2013). In the present sample, MLQ has shown high internal consistency (Alpha Cronbach 0.89).

Statistical Analysis

Normal distributions of raw data were examined using kurtosis and skewness measures. Since the distribution of suicidal ideation was not normal as described, the originally continuous variable was transformed into a dichotomous scale. The relationships between study variables (suicidal ideation, age, physical illness and meaning in life) and background variables (marital status, housing, socioeconomic status and education) were explored in order to recognize potentially confounding variables using Pearson and Spearman correlation.

To evaluate the effects of age, physical illness and meaning in life (continuous variables that distributed normally) on suicidal ideation (dichotomous), Pearson correlation coefficients were calculated. Then, to explore the possible effects of the interactions between age, physical illness and meaning in life on suicidal ideation, hierarchic logistic regression was conducted. The regression included three steps. Age was entered to the model in the first step. In the second, physical illness and meaning in life were entered simultaneously. In the third, dual and triple interaction terms, calculated by multiplying the standard scores of age, physical illness and meaning in life, were entered. Considering previous findings, our sample was divided by age. Significant interaction sources were explored by an additional set of hierarchic logistic regressions, conducted for each age group (below or above 75) separately. These regressions included two steps, the first containing physical illness and meaning in life, and the second containing the interaction term. Finally, to evaluate the effect of meaning in life on suicidal ideation at different levels of physical illness (the effect presented among the young-old group but not the old-old group), the sample was divided into physical illness sub-groups, according to the physical illness median score, and the effects of meaning in life on suicidal ideation in target sub-groups were explored using one-step logistic regressions. The analyses were conducted using SPSS 24 software.

Results

Descriptive Statistics and Correlations Between Study Variables

Demographic characteristics of the sample and mean scores of the study variables are presented in Table 1. Some level of suicidal ideation (BSS score greater than 0) was reported by 42% of the participants (n = 72).

As can be seen in Table 2, suicidal ideation was found to be positively correlated with the severity of physical illnesses, and negatively correlated with meaning in life. Marital status, housing, socioeconomic status, and education were not significantly associated with the study variables. Age was not found to be associated with suicide ideation but was found to be negatively correlated with meaning in life.

Regression Models Predicting Suicidal Ideation

The first logistic regression model examined age, severity of physical illnesses, and meaning in life as predictors of suicidal ideation. Logistic analysis regression results are presented in Table 3. Age, which was entered into the model in the first regression step, made no significant

Table 1 *Sample characteristics (n = 170)*

	n	%
Marital status		
Married	117	68.8
Divorced	16	9.4
Widowed	31	18.2
In relationship	5	2.9
Single	1	0.6
Housing		
Independent	124	72.9
Non-residential	46	27.1
Occupation		
Employed	51	30
Unemployed	119	70
Country of birth		
Israel	80	47.1
Other	90	52.9
SES		
Lower than average	88	51.8
Average	65	38.2
Higher than average	17	10
	M	**SD**
Age	76	8.09
Education (years)	14.17	3.73
CIRS	16.98	4.17
ML	4.91	1.44
BSS	1.46	2.89

CIRS-Cumulative illness rating scale; ML = meaning in life; BSS-Beck scale for suicidal ideation

contribution to the prediction of suicidal ideation. Both physical illness and meaning in life, which were entered in the second step, had significant contributions. Thus, the probability of suicidal ideation was higher when the physical illness was worse and the meaning in life low. The contribution of meaning in life became insignificant in the third regression step, when the interaction terms were entered. Significant interactions were found between physical illness and age and physical illness and meaning in life, and the triple interaction was marginally significant ($p = 0.07$).

Considering previous findings as to the association between age and suicidal risk in late life and to specifically examine how these interactions vary according to age, the sample was divided into two age groups: young-old (aged 65–75, $n = 83$) and old-old elderly (aged above 75, $n = 87$). Therefore, further logistic regression analyses were conducted on both groups separately, evaluating the contributions of physical illness, meaning in life, and the interaction between them on suicidal ideation. The results are presented in Table 4.

As can be seen in Table 4, the regression model for the prediction of suicidal ideation was significant among young-old ($R^2 = 0.35$, $p < 0.001$), but not old-old ($R^2 = 0.07$, $p = 0.11$) participants. At the last regression step, the contributions of physical illness, meaning in life and the interaction between them were all significant among young-old participants, but not significant among old-old participants.

Finally, when the younger group was divided by physical illness median score, the meaning in life contribution was specific to participants with higher scores on physical illness (B = -2.03, SE = 0.74, $p = 0.01$, Odds ratio = 0.13, 95% CI = 0.03–0.56, $R^2 = 0.52$, $\chi^2(1) = 16.29$, $p < 0.001$), and not to the healthier participants (B = -0.01, SE = 0.26, $p = 0.95$, Odds ratio = 0.98, 95% CI = 0.59–1.66, $R^2 = 0.00$, $\chi^2(1) = 0.00$, $p = 0.95$).

Table 2 Correlations matrix

	BSS	Marital status	Housing	SES	Age	Education	CIRS
BSS	-						
Marital status	-.06	-					
Housing	-.09	.62***	-				
SES	.03	.21**	.27***	-			
Age	-.07	.37***	.49***	.13	-		
Education	.10	-.21**	-.27***	-.35***	-.23**	-	
CIRS	.15*	.04	.09	.13	.10	-.10	-
ML	-.16*	-.08	-.10	-.03	-.18*	-.02	-.00

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

BSS (i.e., Beck Scale for Suicidal Ideation) was processes as a dichotomous measure: 0 = 0, 1 = every score greater than 0; Marital status: 0 = married or in relationship, 1 = single, divorced or widowed; Housing: 0 = independent, 1 = sheltered housing or nursing home; SES = socioeconomic status; CIRS-Cumulative illness rating scale; ML = meaning in life. All correlations are Pearson's correlations besides those of the SES variable, which are Spearman's

Table 3 Logistic regression predicting suicidal ideation

Step	Predictor	B	SE	p	OR	95% CI
1	Age	-.02	.02	.41	.98	.95–1.02
	$R^2 = .01, \chi^2_{Step}(1) = 0.69, p = .40$					
2	Age	-.03	.02	.14	.97	.93–1.01
	CIRS	.09	.04	.03	1.10	1.01–1.19
	ML	-.27	.12	.02	.76	.60-.96
	$R^2 = .09, \chi^2_{Step}(2) = 10.79, p = .005, \chi^2_{model}(3) = 11.48, p = .01$					
3	Age	.82	.49	.10	2.28	.86–6.02
	CIRS	5.78	2.67	.03	323.41	1.74–60,218.83
	ML	12.83	7.78	.10	374,151.39	.09–1,562,976,444,448.7
	Age*CIRS	-.06	.03	.04	.94	.88–1.00
	Age*ML	-.14	.10	.13	.87	.72–1.04
	CIRS*ML	-1.00	.50	.05	.37	.14-.99
	Age*CIRS*ML	.01	.01	.07	1.01	1.00–1.02
	$R^2 = .19, \chi^2_{Step}(4) = 13.53, p = .01, \chi^2_{model}(7) = 25.01, p = .001$					

CIRS-Cumulative illness rating scale, ML = meaning in life

Table 4 Logistic regression predicting suicidal ideation by age group

		Young-old group (65–75)					Old-old group (75 +)				
Step	Predictor	B	SE	p	OR	95% CI	B	SE	p	OR	95% CI
1	CIRS	.18	.08	.03	1.20	1.02–1.41	.05	.05	.25	1.06	.96–1.16
	ML	-.50	.22	.02	.61	.39-.94	-.14	.14	.29	.86	.66–1.13
	$R^2 = .17, \chi^2_{Step}(2) = 10.86, p = .004$						$R^2 = .04, \chi^2_{Step}(2) = 2.43, p = .30$				
2	CIRS	2.64	.89	.003	14.0	2.42–80.83	.32	.18	.09	1.37	.95–1.97
	ML	6.52	2.48	.01	682.20	5.29–87,990.49	.83	.66	.21	2.30	.63–8.39
	CIRS*ML	-.46	.16	.005	.63	.46-.87	-.05	.04	.14	.95	.88–1.02
	$R^2 = .35, \chi^2_{Step}(1) = 13.93, p < .001, \chi^2_{model}(3) = 24.79, p < .001$						$R^2 = .07, \chi^2_{Step}(1) = 2.52, p = .11, \chi^2_{model}(3) = 4.95, p = .17$				

CIRS-Cumulative illness rating scale, ML = meaning in life

Discussion

In the present study, physical illness and meaning in life were both associated with suicidal ideation among elderly men. Contrary to our hypothesis, age did not predict suicidal ideation, but was relevant to clarifying the contribution of physical illnesses and meaning in life to suicidal ideation. Specifically, among young-old elderly (i.e., aged 65–74), meaning in life was found to be a protective factor of suicidal ideation for those who reported poorer physical health, but not among the older group (i.e., aged 75 years and older).

Physical illness was found to be associated with suicidal ideation. These findings are compatible with other studies that reported that health status predicted suicidal ideation among older adults (Bergman Levy et al., 2011). The association between physical health and suicidal ideation might be clarified through several directions. Coping with chronic diseases inevitably involves making changes in daily routine and functioning, self-esteem, and the dynamics of close relationships, which consequently may lead to emotional distress. According to previous studies, physical illnesses led to suicide when they threatened a person's independence, dignity, and self-worth, as well as the ability to enjoy life (Fässberg et al., 2016). Moreover, older adults who made a suicide attempt reported that their health condition and physical pain—which led to decline in autonomy and functioning—were the main reasons to die by suicide (Van Orden et al., 2015). Although coping with physical diseases and consequences are very common and sometimes unavoidable among older adults, only some of them have suicidal thoughts. In other words, deterioration in physical health is a major but not exclusive factor in understanding suicidal ideation and behavior in this population.

According to our findings, the severity of physical illness was associated with suicidal ideation among younger, but not older elders. These findings imply that the perception and emotional consequences of dealing with physical

diseases might be age dependent (Wiktorsson et al., 2016), and raise questions regarding the subjective experience and meaning of physical disease among younger elders. Apparently, coping with health conditions among younger elders has different meanings and implications than for older elders. At a younger age, people are more involved with work and family activities than later in life. Therefore, physical deterioration may lead to a significant reduction in one's ability to work, as well as experience and enjoy interpersonal interactions with grandchildren and friends. These social losses and role changes might contribute to the perception that one is a burden on others (Jahn et al., 2013), and in line with the interpersonal theory of suicide, perceived burdensomeness may contribute to suicidal morbidity and mortality in late life (Van Orden et al., 2012).

In the present study, meaning in life was found to be a protective factor for suicidal ideation among elders. This finding is compatible with previous findings that found a negative correlation between meaning in life and suicidal ideation in late life, beyond the influence of hopelessness and depression (Heisel et al., 2016). Moreover, a sense of meaning in life for the elderly has been shown to be related to social integration, family relationships and better physical health (Lee et al., 2015). In late life, meaning in life undergoes a change because of functional decline and growing awareness of approaching death (Steger et al., 2009). Maintaining the sense of meaning becomes a challenge due to multiple losses that are associated with aging, including loss of health, close relationships, and elements of previous identity (Pinquart, 2002). Accordingly, group therapy focused on psychological resilience (including meaning in life) contributed to the prevention of symptoms of depression, hopelessness and suicidal ideation among men aged 55 and over (Heisel et al., 2020).

According to our finding, among younger elders (aged 65–74), low meaning in life predicted suicidal ideation among those who reported poorer health. In other words, meaning in life was found to be a protective factor for suicidal ideation specifically among younger elders who are coping with physical illnesses. One possible explanation for the interaction between meaning in life, physical health and age may be that younger elders derive meaning in life in contexts that are prone to be affected by their physical condition, i.e., work, career, and active participation in interpersonal interactions. Unlike their older counterparts, most people aged 65–75 are married, take an active part in raising grandchildren, and enjoy activities with family and friends (e.g., Tomioka et al., 2017). It is possible that young-old participants extract meaning in life from their ability to achieve their goals in areas of work and family (Pinquart, 2002), and that health deterioration during this relatively early period of old age has a more detrimental impact on their subjective wellbeing, in comparison to later

in life. Accordingly, meaning in life may function as a buffer against these negative consequences of coping with physical illnesses particularly in the early stages of aging. Consequently, it is important to focus on meaning in life as a goal in therapeutic interventions designed to reduce suicidal ideation in young older men who are coping with poorer health.

In conclusion, it is well known that good health contributes to successful aging while physical difficulties affect various areas of life, including the emotional and interpersonal condition of the elderly. However, our findings indicate that meaning in life may be a protective factor, at least for the younger elders. In other words, although successful aging is based, by definition, on high physical, psychological, and social functioning in old age without major diseases (Rowe & Kahn, 1987, 1997), for younger elders, meaning in life may function as a psychological resource that affects the balance of other factors, even in the context of physical illness.

The present study has several limitations. First, older adults are less likely to report both passive and active suicidal ideation and even tend to deny emotional stress and suicidal behavior (Bland, 2012; Conte et al., 2015; Denneson et al., 2010). Therefore, there is a possibility that suicidal ideation was only partially reported by our participants. Second, there may be a possible sampling bias; older men who decided to participate in our study might be more open-minded and willing to share their emotional experiences. Third, the severity of participants' physical illnesses was assessed using a self-report questionnaire and was not confirmed by medical records. In addition, since people with severe disabilities were excluded, findings may only be generalized to elderly populations without significant disability. Finally, the cross-sectional design of the current study does not allow for causal inferences.

Furthers studies are needed to expand our understanding regarding the uniqueness and mutual influences of risk and protective factors for suicide in various age groups in late life, including people aged 95 and over, a group which is also at high risk. Meaning in life is consistently described as a resilience factor in the field of suicide. Previous research pointed at 'reasons for living' as a protective factor (e.g. Wadhwa & Heisel, 2019). Therefore, characteristics and implications of meaning in life, as well as reasons for living, should be further studied, to clarify the sources of meaning in life in this population, considering age variability along the later stages of life. As a whole, our findings indicate the importance of age-differences within old age in studying risk and protective factors for suicidal ideation.

From a clinical perspective, our findings, combined with findings from previous studies, suggest the importance of cultivating meaning in life in old age. Meaning in life in the elderly may be enhanced by group and psychotherapeutic interventions, focusing on strengths, resources, and values (Kashaniyan & Khodabakshi Koolaee, 2015). In recent

years, several community, group, and individual intervention modalities have been examined, that may have the potential to improve the sense of belongingness and well-being of the elderly (e.g., Cesetti et al., 2017; Ng et al., 2018; Sabri et al., 2019). However, research is still scarce; meaning in life should be further explored as a focus in therapeutic interventions for reducing suicidal ideation, particularly among men who are coping with poorer health.

Author contributions Dr. Lutzman designed the study, collected the data, was responsible for statistical analysis, and wrote the manuscript. Dr. Sommerfeld supervised the study and wrote the manuscript.

Data availability The data that support the findings of this study are not openly available due to sensitivity (e.g., human data) and are available from the corresponding author upon reasonable request.

Declarations

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

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