Gender differences and the will-to-live in old age

Płeć a wola życia w wieku starszym

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International statistical data show that compared to men, women are underprivileged in personal resources, such as education and income, physical health and function, and in psychological characteristics, all of which are expressed in lower levels of subjective wellbeing (SWB). Literature shows that SWB is evaluated by numerous scales, which refer to various aspects of SWB. The purpose of this paper is threefold: a) to demonstrate the worldwide phenomenon of gender differences; b) to present a relatively new and unique indicator of wellbeing that is especially appropriate for older adults, the Will-to-Live (WTL), and a scale to evaluate it; c) to examine whether in old age, women differ from men in the strength of their wish to continue living. Results of a series of studies on older persons using the WTL scale indicate that the WTL is a multifaceted generalized indicator of wellbeing that systematically depicts the existing gender differences, indicating that women rank lower on SWB, and have a lower commitment to life than men. The WTL also predicts mortality among women, and is explained by different factors among men and women. As a measure, the WTL is a simple, parsimonious, easy to use tool, and well accepted by older people. Due to its diagnostic and prognostic values, as well as its good psychometric features, the WTL is recommended for practical use in monitoring changes in wellbeing, and evaluating effectiveness of intervention programs directed towards improving the wellbeing of older adults.

Introduction

Women differ from men not only in their biological structure and functions, but also in their social roles. The Bible clearly specified thousands of years ago "In pain you shall bring forth children" (Genesis 3:16), and "By the sweat of thy brow shall you eat bread" (Genesis 3:19). These basic biological and social differences including the prevalent paternalistic approach can lend expla-
nations to the worldwide phenomenon of women being disadvantaged in numerous domains of life. These include socio-economic status, physical health and function, and psychological characteristics, all of which are expressed in lower levels of subjective wellbeing (SBW). The purpose of this study is threefold: (a) to describe worldwide gender differences regarding quality of life in old age; (b) to present a relatively new and unique indicator of wellbeing - the Will to Live (WTL); (c) to examine whether in old age, with its significant physiological, physical and social changes, women differ from men in the strength of their wish to continue living.

Gender differences:
Gender differences are reported in numerous domains of life:
Socio-economic status

International statistical data show that in comparison to men, women are underprivileged in socio-economic resources, such as education and income. For example, according to a UN report for the years 1980 to 2010, although the percentage of illiteracy has generally decreased over the years, the gender gap of about 20% in favor of men continues to exist in 105 less developed nations [46]. In developed nations, growing numbers of women acquire higher education, join the labor force, and increase their presence in high societal positions. However, they continue to be deprived from positions of social power, and the percentage of women participating in the labor force continues to be lower than that of men in all countries [48, 49]. Moreover, compared to men, women more often hold part time and low status positions, have fewer years of work and earn lower wages. As a result, fewer women receive pensions from work places, and if they do receive such pensions, they are lower than those of men. Therefore, the economic status of women is inferior to that of men [54].

Life expectancy, health and function

Women outlive men on all the continents and in almost all of the countries around the world. However, in all elasticity the gap in length of life in years between genders decreases with age [55]. In spite of this worldwide statistic, since the seventies of the last century, the biomedical literature has shown that women suffer from higher morbidity than men due to acute and chronic physical and psychiatric illnesses [34,50-53]. These discrepancies are maintained even when conditions associated with reproduction were excluded [34,49] and were similar whether they were based on self-reporting or on more objective measures.

Emotional and cognitive aspects of health and wellbeing

According to the bio-psycho-social model, the disadvantages on all three levels are interactive. For example, declines in health and physical function influence psychological wellbeing [15,21]. Some researchers actually view depression as a risk factor of disability [29]. Indeed, in comparison to men, women are more likely to be moody than men [13], worried [32], anxious [3, 45], sad, and depressed [19,22,23,25,28,33,37,41,52]. Furthermore, many studies have found that women score lower than men on psychological indicators of wellbeing such as self-esteem [6,16,17,36,40,41] and satisfaction with life [6,22,52].

Some explanations have been offered to the question: why, despite living longer, do women suffer more from non-fatal disease and death? From physical, emotional and cognitive problems, perceive their health status as worse than that of men, are more depressed, and less satisfied with their lives? While Legato, in her book [27], presented data indicating that women are physiologically more resilient than men, earlier studies pointed out that while men suffer more from potentially fatal diseases, women have higher rates of mild illness conditions causing disabilities and discomfort [20,31,50-52].

Gender differences in old age

Two opposing hypotheses on gender differences in physical and psychosocial wellbeing are presented in the literature - the convergence and divergence hypotheses, in addressing the question, what happens when people age? In addition to a natural biological selection that occurs during late adulthood, many changes on different levels of life crop up when aging such as physiological hormonal changes, a decline in physical and functional status, and on the societal level, changes in the biological and social roles of both men and women, and provision of equal governmental pensions to both genders in many countries. All of these age-related changes raise the question, whether and to what extent do the gender gaps in physical and psychosocial wellbeing diminish with aging, or do they continue to exist as before?

Several researchers in developed nations have addressed this question. Verbrugge [50-51] reported in a number of studies that the gender gap narrows in old age with regard to frequency of illnesses, drug consumption, and use of health services. Some national studies that distinguished among various age groups of elderly persons indicate that gender differences are maintained in old age with a trend to converge only from the age of 80 or 85 [6,30]. However, regarding functional disabilities and depression, findings of other studies indicate that the gaps between men and women further increase with aging [1,2,33].

It seems that in old age, some factors which cause women to be disadvantaged in comparison to men either persist, or are new and specific to this stage of the life course. In terms of health and function, according to the WHO Atlas of Health in Europe [55], the percentage of years of life lived in disability is higher for women than for men. For example, in Italy, men aged 65 and up have a disability of 92.1% of the rest of their lives will be lived free of disability, whereas women can expect only 90.6%. In France the figures are 91.3% for men versus 89.5% for women. Similarly, U.S. data indicate that women in old age suffer more than men from limitations in physical functioning related to a wide range of activities of daily living [39]. These differences indicate that older women need assistance in old age. However, due to their longer life expectancy and being married at a younger age than that of their husbands, more women than men live alone in old age, and therefore encounter more difficulties in fulfilling their increasing physical daily needs [18]. In addition, women’s role changes regarding physical needs, the gender gap in the socio-structural opportunities and achievements accumulated during the life course in terms of education, income and social status continues to negatively affect the general wellbeing of older women.

Furthermore, one of the social roles expected of women is that of family caregiver, either for the children, the grandchildren, or for husbands, siblings, friends and neighbors. Today many women work outside the home, while raising their children and grandchildren, and at times also care for their ill husbands and/or relatives [35]. With the prolongation of life, including life with disability, care-giving is provided to family members and for longer periods of time. The toll paid by caregivers is often expressed in emotional and physical exhaustion, family conflicts, disengagement from social and leisure activities, work and caregiver disruptions as well as financial problems [35, 12]. Such accumulated negative effects, which endure after the death of the patient cared for [4], cause the caregivers themselves to become a group at high risk for illness and mortality [24,35,42]. Older women continue to perform the caregiving role although they themselves are often ill and lack the necessary physical, psychological, and economic resources.

All of these disadvantages and life conditions experienced by women, when added to their accumulated frailty, have negative consequences for women’s psychological functioning and SWB [43]. However, studies show that not all the measures of wellbeing demonstrate consistent gender differences as reported by Pinquart and Sorensen [38], who conducted a meta-analysis of 300 empirical studies on gender differences in SWB. In these studies - SWB was evaluated by a variety of measures. Their final conclusion was that gender differences in SWB although small, continue to exist in old age. They explained that older women’s disadvantages in SBV derive mainly from the fact that they have more problems with performance of daily living, health problems, lower socio-economic status, and widowhood.

SWB has been studied by using a variety of scales including satisfaction with life, morale, self-esteem, happiness, subjective health, subjective age, and lack of depression, and loneliness. The multiplicity of indicators and scales actually indicates that there is no single scale that can capture the sense of general wellbeing in old age.

Furthermore, we can say that not all the measures of subjective wellbeing consistently express the gender differences in objective quality of life. These conclusions lead us to offer a measure for a relatively new
The Will-to-Live: The will-to-live (WTL) is a concept which seems to be of special importance for assessing SWB in old age, mainly due to two typical processes: (1) At this stage of life more than at previous stages, people’s awareness to the approaching end of life increases; (2) in old age people face increasing losses in almost all domains of life such as health and function, appearance, social ties and activities, economic status etc., all of which negatively affect their quality of life. More often than before, these aging-related processes cause older persons to raise, and to confront the question whether life is still worth living. It is therefore, interesting that although addressed in poetry and literature, the WTL has not yet been acknowledged by behavioral scientists and gerontologists. Although some scholars have used related terms such as meaningfulness of life, morale, and disengagement, to the best of our knowledge, until the 1990’s, only one study focused directly on the will to live [14], with a scale evaluating it indirectly.

What is the Will-to-Live? The strive for life is embedded in the biological structure of all living creatures and is a vital part of their existence. As such, this strive for life can be perceived as a basic need, a goal and a drive. In human beings, this component of existence has expressions on the physiological and psychological levels. However, in spite of being a built-in instinct, it can also be significantly influenced by societal values and directives.

On the instinctual level, the expression of this drive can be observed in the invested efforts to address basic needs such as food, fluids and shelter in order to ensure survival, which are common to all living creatures. Furthermore, in case of a threat to an organism’s existence a spontaneous physiological reaction is aroused. Among humans it is a generalized physiological reaction expressed as a syndrome of physiological changes such as elevated blood pressure, tachycardia, mydriasis, tachypnea, etc., all of which are directed to restore the disrupted equilibrium and enable continuing existence [43]. On the cognitive level, a perceived threat to life arouses coping behaviors, which depend on one’s cognitive evaluation of the degree of harm and his/her available resources [26]. It was assumed that in conditions such as facing a significant decrease in quality of life with no hope to reinstate it, as in the case of being diagnosed with a severe terminal disease, people’s first reactions to the threat are emotional such as anxiety and distress, and later also become cognitive, including self-evaluation of the wish to continue living under life-threatening conditions [9]. The reactions on all of these levels are interactive: as for example, evaluations at the cognitive level can cause emotional changes, which in turn arouse physiological reactions, and vice versa.

Furthermore, since human beings are also social creatures, their cultural values, ideologies and beliefs, have a strong influence on their natural instinct to preserve their existence. The vast majority of societies tend to strengthen their members’ strive for life and some of them even denigrate those who commit suicide, in order to ensure their own biological continuity. However, in certain situations, it is the societies that convince their members to overcome their natural instincts and to end their lives. Modern-day suicide bombers and the mass suicides in certain cults well exemplify how cultural dictates have the power to suppress peoples’ natural drive for life [8].

Based on the above, the WTL can be perceived as the psychological expression of humans’ natural instinct to strive for life. A strong wish to continue living and a commitment to life characterize what we would call ‘normal people’ in all societies. This basic drive has rational as well as irrational expressions. We assumed that in old age, being the last stage of the life course, people would be more aware than ever of their WTL and would therefore be able to evaluate its strength on both, the rational and irrational levels [8]. We, further assumed that from a theoretical point of view, the motivational component encompassed in the WTL, makes this concept a unique and important indicator of general wellbeing in old age.

Measures and results The question raised is whether we can appropriately evaluate the WTL. In my series of Israeli studies, the WTL was first used to predict wishes for life-sustaining treatments in a number of mild and severe hypothetical illness conditions among elderly people (aged 70+). In this study, the WTL was evaluated by a direct single question asking elderly people to rank the strength of their WTL on a scale from 0 to 5. In an explanatory model of preferences for life-sustaining treatments in severe illness conditions we found that the WTL was a significant predictor of wishes for the prolongation of life, when controlling for gender, religiosity, personal experience with other people’s severe diseases, health status, social support, and fear of death and dying [9]. In the same study, we hypothesized that socially and psychologically weaker groups of people such as women and new immigrants will have a weaker WTL than their counterparts. Our findings provided support to this hypothesis - women ranked their WTL lower than men, and new immigrants were found to have a weaker WTL than Israeli-born and veteran immigrants [7]. The WTL not only differentiated between men and women, but was also found to derive from somewhat different factors in each gender. For example, in the first study conducted in 1994, a statistical multivariate analysis showed that women’s WTL was best explained by their self-esteem, fear of death and life satisfaction - mainly psychological variables, while that of men was significantly explained not only by self-esteem and fear of death, but also by living with a partner, psychosomatic symptoms, and age, that is, also by physical and social support factors [7]. Furthermore, a longitudinal analysis revealed that the WTL was a statistically significant and strong predictor of survival after 7.5 years among women in addition to age and self-rated health status, after adjusting for age, daily functioning, working outside home or volunteering, and self-esteem. According to this analysis, the stronger the WTL, the higher were the chances of survival for women [7]. The same analysis did not show that the WTL was a significant predictor of men’s survival.

The scale to evaluate the WTL was subsequently developed from a single item to a five-item scale. The new scale includes components of self-perceived change in one’s WTL in comparison to younger ages and to the past year, as well as an evaluation of the WTL compared to one’s peers. The new scale was used in a series of Israeli longitudinal and cross-sectional studies of older adults. In all of these studies, without any exception, women consistently reported having a weaker WTL than men (Table 1). The significant role of gender in predicting wellbeing was also demonstrated in multivariate analyses conducted for explaining the WTL. In these analyses, which were performed on total samples, gender remained a statistically significant predictor even when adjusting for other well-known indicators of physical and psychological wellbeing. For example, in a study of a national random sample of 860 older drivers aged 70+ (Table 1), the statistically significant explanatory variables of the WTL were: happiness, loneliness, depression, satisfaction with life, self-assessed vision, number of chronic diseases, and gender. In another

Table I
<table>
<thead>
<tr>
<th>Sample: type</th>
<th>(number of participants)</th>
<th>age</th>
<th>Year</th>
<th>Men: Mean (SD)</th>
<th>Women: Mean (SD)</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Random</td>
<td>(n=1138) 70+</td>
<td>1994</td>
<td></td>
<td>4.21 (0.94)</td>
<td>3.85 (1.06)</td>
<td>5.63</td>
<td>.000</td>
</tr>
<tr>
<td>b. Convenience sample</td>
<td>(n=262) 75+</td>
<td>2006</td>
<td></td>
<td>3.88 (0.53)</td>
<td>3.55 (0.79)</td>
<td>3.77</td>
<td>.000</td>
</tr>
<tr>
<td>c. Random</td>
<td>(n=861) drivers 70+</td>
<td>2007</td>
<td></td>
<td>3.83 (0.58)</td>
<td>3.43 (0.74)</td>
<td>4.34</td>
<td>.000</td>
</tr>
<tr>
<td>d. Random</td>
<td>(n=336) 75+</td>
<td>2008</td>
<td></td>
<td>3.95 (0.60)</td>
<td>3.67 (0.74)</td>
<td>5.97</td>
<td>.000</td>
</tr>
<tr>
<td>e. Random</td>
<td>(n=1364) 75+</td>
<td>2010</td>
<td></td>
<td>3.89 (0.65)</td>
<td>3.63 (0.78)</td>
<td>3.35</td>
<td>.001</td>
</tr>
<tr>
<td>d. Random</td>
<td>(n=336) 75+</td>
<td>2008</td>
<td></td>
<td>3.84 (0.70)</td>
<td>3.48 (0.83)</td>
<td>3.99</td>
<td>.000</td>
</tr>
<tr>
<td>e. Random</td>
<td>(n=1364) 75+</td>
<td>2010</td>
<td></td>
<td>3.66 (0.68)</td>
<td>3.43 (0.76)</td>
<td>6.35</td>
<td>.000</td>
</tr>
</tbody>
</table>
To summarize, in addition to significant associations with other measures of SWB in all our studies, we found systematic gender differences, showing that women have a weaker WTL than men, that the WTL of men and women is shaped by different factors, and that women’s WTL predicts survival over a long period of time whereas men’s WTL does not. We also found that across studies, the WTL weakens with advancing age, and predicts wishes to prolong life in mild and severe illness conditions.

Conclusions

In old age, women live longer than men, but their lower scores on numerous measures of personal resources and quality of life such as education, economic status, and objective and subjective indicators of well-being, indicate that their enjoyment of life is less than that of men. This is a worldwide phenomenon prevalent in developing as well as in developed nations. The WTL scales succeeded in capturing not only women’s lower levels of satisfaction with their lives and their general SWB, but also a new dimension of SWB: the motivation to continue living and to strive for life.

Regarding the concept and scale for evaluating the WTL, findings across studies indicate that the WTL is a reliable diagnostic tool for assessing general wellbeing. It is also of prognostic value in predicting survival. As a measure, the WTL is a simple, elegant, and easy-to-use tool. Most importantly, on the basis of our experience, the questionnaire is well accepted by older people, probably because this subject often occupies their thoughts. In light of these findings, the WTL is recommended for use in practice for evaluating general wellbeing, monitoring changes in wellbeing, and evaluating effectiveness of psychosocial and medical interventions in general, and particularly at the end of life.

References