

Understanding Hopelessness among Community-Dwelling Chinese Older Adults in the Greater Chicago Area

Dong XQ^{1,*} and Chang ES¹

¹Rush Institute for Healthy Aging, Rush University Medical Center, Chicago, IL, USA

*Corresponding author: XinQi Dong, MD, MPH, Professor of Medicine, Nursing, and Behavioral Sciences at Rush University Medical Center, Chicago, Illinois, Director, Chinese Health, Aging and Policy Program Associate director of the Rush Institute for Health Aging, 1645 West Jackson, Suite 675, Chicago, IL 60612, Tel: 312 942 3350; Fax: 312 942 2861; E-mail: xinqi_dong@rush.edu

Rec date: Oct 31, 2014; Acc date: Dec 01, 2014; Pub date: Dec 03, 2014

Copyright: © 2014 Dong XQ, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract

Background: Previous studies suggest that hopelessness is associated with adverse health outcome and mortality. However, there exists limited understanding regarding the feelings of hopelessness in the U.S. Chinese aging population, the largest and oldest Asian population in the U.S.

Objective: This study aims to examine the prevalence of hopelessness among community-dwelling U.S. Chinese older adults. Methods: Data were drawn from the PINE study, a population-based study of Chinese older adults aged 60 and above in the Greater Chicago Area. We administered Beck Hopelessness Scale -7 to examine feelings of hopelessness.

Results: Of the 3,159 community-dwelling Chinese older adults, 40.9% of the participants reported that they possessed hopelessness thoughts. Age, years in the U.S., and years in the community were significantly and positively correlated with any hopelessness, while overall health status, quality of life, and health changes over the last year were significantly and negatively correlated with any feelings of hopelessness.

Conclusion: Our findings suggest that the feelings of hopelessness were prevalent in U.S. Chinese older adults. Further longitudinal studies are needed to examine the risk factors and outcomes of hopelessness among U.S. Chinese older adults.

Keywords: Psychological distress; Chinese; Older adults; Prevalence

Introduction

Hopelessness is perceived as a system of negative cognitive expectancies concerning oneself and one's future life [1]. Within the cognitive model of psychopathology, hopelessness is conceptualized as a cognitive characteristic which is both "a determinant", and "a component" of the depressive condition [2]; and the feelings of hopelessness are construed as having a critical antecedent role in the development of depression. Despite the expression of hopelessness is sometimes hypothesized to be a larger segment of depressive symptoms, studies suggest that hopelessness can be thought of as a separate set of beliefs that influences how a person perceives information, and behaves in the world [3]. Individuals who have feelings of hopelessness are often characterized by possessing a negative view about the future, and believe that nothing will turn out right for them, that they will never succeed at what they try to do, that their important goals can never be attained, and that their worst problems will never be solved [4].

Empirical studies suggest that hopelessness is associated with adverse health outcomes. Hopelessness is associated with cardiovascular morbidity and mortality, including ischemic heart disease, acute myocardial infarction, and atherosclerotic progression [5]. In addition, hopelessness is a key variable linking depression to suicide in all age groups [6]. For older adults, in particular,

hopelessness is a strong predictor of suicidal ideation [7]. Prospective studies of psychiatric older patients seen in mental health treatment settings suggest that hopelessness also confers risk for death by suicide [8].

The concept of hopelessness exist across diverse cultural groups, including Asian countries such as the Japanese and Chinese population [9,10]. Existing studies in the Chinese population in Mainland China suggest that hopelessness was a determinant for depressive symptoms, and furthermore, having reduced level of hope was associated with both suicidal ideation and attempts [11,12]. Despite its significance, we are not aware of any population-based study that has systematically examined the prevalence of hopelessness. Furthermore, we know very little about the feelings of hopelessness in the U.S. Chinese aging population, the largest and oldest Asian population in the U.S.

In the past ten years, Chinese aging population aged 65 years and older has experienced a growth rate almost four times higher than the general U.S. aging population [13]. Currently, Chinese older adults aged 60 and over account for 14% of the total Chinese population in the U.S. Whereas Chinese community is represented throughout the country, Chicago has one of the largest congregations of Chinese Americans. In spite of the rapid demographic growth, there exists little understanding of their psychological well-being among U.S. Chinese older adults. Compared to other population, Chinese older adults are less acculturated and more oriented towards traditional Confucianism culture which place great emphasis on interpersonal harmony and

collectivism [14]. Whereas collectivism often encourages individuals to compromise personal interest for the better well-being of the family, community and society, Chinese older adults also tend to be fatalistic about the future, believing that illness is inevitable and therefore more likely to delay medical treatment [15]. These cultural beliefs compounded with structural barriers to healthcare system may render Chinese aging population more vulnerable to psychological distress including feelings of hopelessness or suicidal behaviour. Evidence suggests that U.S. Chinese older adults have the highest suicide rate than any other racial groups nationwide [16,17]. Specifically, suicide rate among U.S. Chinese older women is a higher leading cause of death compared with the general population [16]. A prior study noted a 3-fold higher suicide rate among U.S. Chinese women aged 65-74 years; 7-fold higher suicide rate among the U.S. Chinese women aged 75-84 years; and 10-fold higher suicide rate among the U.S. Chinese women over age 85 compared to white women of the same age groups [18].

Despite the increasing need to investigate psychological distress in Chinese older adults, research on hopelessness in U.S. Chinese older adults has been scarce. Therefore, the objectives of this study are to: 1) examine the prevalence of hopelessness among U.S. Chinese older adults in great Chicago area; 2) investigate the socio-demographic correlates of hopelessness in U.S. Chinese older adults.

Methods

Population and settings

The Population Study of Chinese Elderly in Chicago (PINE) is a community-engaged, population-based epidemiological study of U.S. Chinese older adults aged 60 and over in the greater Chicago area. Briefly, the purpose of the PINE study is to collect a community-level data of U.S. Chinese older adults to examine the key cultural determinants of health and well-being [19]. The project was initiated by a synergistic community-academic collaboration between Rush Institute for Healthy Aging, Northwestern University Medical Center, and many community-based social services agencies and organizations throughout the greater Chicago area.

In order to ensure study relevance and enhance community participation, the PINE study implemented extensive culturally and linguistically appropriate community recruitment strategies strictly guided by community-based participatory research (CBPR) approach [20,21]. With over twenty social services agencies, community centers, health advocacy agencies, faith-based organizations, senior apartments and social clubs serving as the basis of study recruitment sites, eligible participants were approached through routine social services and outreach efforts serving Chinese Americans families in the Chicago city and suburban areas. Our participants were surveyed in their preferred language and dialects including Mandarin, Cantonese, Toishanese, Teochew dialect, or English. Out of 3,542 eligible older adults who were approached, 3,159 agreed to participate in the study, yielding a response rate of 91.9%.

Based on the available census data drawn from U.S. Census 2010 and a random block census project conducted in the Chinese community in Chicago, the PINE study is representative of the Chinese aging population in the greater Chicago area with respective to key demographic attributes including age, sex, income, education, number of children, and country of origin [22]. The study was

approved by the institutional review boards of the Rush University Medical Center.

Measurements

Socio-demographics: Basic demographic information included age (in years), sex (female and male), education (years of education completed), personal income (0-\$4,999 per year/\$5,000-\$9,999 per year/\$10,000-14,999 per year/more than \$15,000 per year), marital status (married/separated/divorced/widowed), number of children and living arrangement (living alone/living with 1-2 persons/living with 3 or more persons). Number of years in the community, number of years in the U.S., and country of origin (Mainland China/Hong Kong or Macau/Taiwan/Vietnam, Thailand, Philippine, or Malaysia/USA and Canada) were also assessed in all participants.

Overall health status, quality of life and health changes over the last year: Overall health status was measured by 'in general, how would you rate your health' on a four point scale (1=poor, 2=fair, 3=good, 4=very good). Quality of life was assessed by asking 'in general, how would you rate your quality of life' on a four point scale ranging from 1=poor to 4=very good. Health changes over the last year was measured by 'compared to one year ago, how would you rate your now' on a three point scale (1=worsened; 2=same; 3=improved).

Beck Hopelessness Scale-7 (BHS-7): The BHS-7 is a widely-used 7-item scale that assesses the degree of an individual's negative attitudes about the future. Three of the seven items are worded positively (indicating hopefulness), including "In the future, I expect to succeed in what concerns me the most"; "I have great faith in the future"; "I can look forward to more good times than bad times." The remaining four statements are worded negatively (indicating hopelessness), including "My future seems dark", "All I can see ahead of me is unpleasantness rather than pleasantness", "I don't expect to get what I really want", "It is very unlikely that I will get any real satisfaction in the future." Participants were asked to rate each statement on a 6-point Likert scale from strongly disagree, moderately disagrees, slightly disagree, slightly agree, moderately agree, and strongly agree. The total score on the BHS-7 can range from 7-42, with higher scores reflecting greater levels of hopelessness. Adequate internal reliability has been reported for the scale across diverse clinical and nonclinical populations in the 0.80s [23,24]. In our study cohort, the Cronbach's alpha coefficient of reliability for the Beck Hopelessness Scale -7 was 0.82. With respect to content validity, the original English versions of the instruments were first translated into Chinese by a bilingual research team, and subsequently examined by bilingual and bicultural community leaders enlisted from the Community Advisory Board (CAB).

Data analysis

We used descriptive statistics to summarize demographic information of the participants. Chi-square statistics were used to compare the socio-demographic characteristics between groups with and without feelings of hopelessness. The Pearson correlation coefficients were calculated to determine the relationship of the socio-demographic and health related variables with feelings of hopelessness. All statistical analyses were undertaken using SAS, Version 9.2 (SAS InstituteInc., Cary, NC).

Results

Sample Characteristics

Of the 3,159 participants, 58.8% are female. The mean age of study participants were 72.8 (SD ± 8.8) years old. Characteristics of the study participants by the presence of any hopelessness are presented in Table 1. Overall, 1,423 (40.9%) participants reported feelings of hopelessness. Among the participants who reported hopelessness, 58.8% were

female; the majority has received education less than 12 years (78.5%), and with income less than \$10,000 (85.6%). Compared to the group without any hopelessness, the group with hopelessness symptoms had a significantly greater proportion of older adults being widowed (25.5% vs. 23.1%, $p < 0.003$), with 0-1 child (17.6% vs. 12.7%, $p < 0.001$), being in the U.S. for more than 30 years (20.3% vs. 16.4%, $p < 0.02$), having poor overall health status (28.1% vs. 10.5%, $p < 0.001$), having fair or poor quality of life (53.4% vs. 45.7%, $p < 0.001$), and having worsened health status (49.5% vs. 36.5%, $p < 0.001$).

	Any Hopelessness (N=1,423)	No Hopelessness (N=2,054)	χ^2	d.f.	p value
Age, N (%)					
60-64	298 (20.9)	372 (22.5)			
65-69	285 (20.0)	345 (20.9)			
70-74	273 (19.2)	322 (19.5)			
75-79	249 (17.5)	295 (17.8)			
80-84	192 (13.5)	187 (11.3)			
85 and over	126 (8.9)	133 (8.0)	4.8	5	0.45
Sex					
Male	586 (41.2)	683 (41.3)			
Female	837 (58.8)	971 (58.7)	0.00	1	0.95
Education (years), N (%)					
0	86 (6.1)	93 (5.6)			
1-6	516 (36.4)	638 (38.6)			
7-12	511 (36.0)	574 (34.7)			
13-16	271 (19.1)	296 (17.9)			
17+	35 (2.5)	52 (3.2)	3.4	4	0.49
Income (USD), N (%)					
\$0-\$4,999	478 (33.8)	543 (33.0)			
\$5,000-\$9,999	733 (51.8)	845 (51.4)			
\$10,000-\$14,999	1232 (9.3)	176 (10.7)			
\$15,000-\$19,999	33 (2.3)	34 (2.1)			
\$20,000+	39 (2.8)	47 (2.9)	1.9	4	0.76
Marital Status, N (%)					
Married	975 (69.3)	1,212 (73.6)			
Separated	37 (2.6)	18 (1.1)			
Divorced	37 (2.6)	36 (2.2)			
Widowed	359 (25.5)	381 (23.1)	14.3	3	0.003
Number of Children, N (%)					
0	87 (6.1)	41 (2.5)			

1	163 (11.5)	196 (10.2)			
2-3	737 (51.9)	971 (58.7)			
4 and more	433 (30.5)	472 (28.6)	32.9	3	<0.001
Living Arrangement, N (%)					
Living alone	316 (22.2)	337 (20.4)			
1	576 (40.5)	704 (42.6)			
2-3	222 (15.6)	249 (15.1)			
4 or more	309 (21.7)	363 (22.0)	2.2	3	0.54
Years in the U.S., N (%)					
0-10	359 (25.3)	462 (28.1)			
11-20	423 (29.8)	518 (31.5)			
21-30	351 (24.7)	395 (24.0)			
31 and more	288 (20.3)	270 (16.4)	9.4	3	0.02
Years in the Community, N (%)					
0-10	814 (57.5)	951 (57.6)			
11-20	343 (24.2)	380 (23.0)			
21-30	156 (11.0)	220 (13.3)			
31 and more	104 (7.3)	101 (6.1)	5.5	3	0.14
Country of Origin, N (%)					
Mainland China	1,299 (91.3)	1,556 (94.1)			
Others	124 (8.7)	98 (5.9)	8.9	1	0.003
Overall Health Status, N (%)					
Very good	52 (3.7)	86 (5.2)			
Good	414 (29.1)	661 (40.0)			
Fair	557 (39.1)	733 (44.3)			
Poor	400 (28.1)	174 (10.5)	161.7	3	<0.001
Quality of Life, N (%)					
Very good	86 (6.0)	127 (7.7)			
Good	578 (40.6)	772 (46.7)			
Fair	690 (48.5)	730 (44.2)			
Poor	69 (4.9)	24 (1.5)	41.7	3	<0.001
Health Changes Over the Last Year, N (%)					
Improved	116 (8.2)	151 (9.1)			
Same	602 (42.3)	899 (54.4)			
Worsened	705 (49.5)	603 (36.5)	54.4	2	<0.001

Table 1: Characteristics of PINE Study Participants by Any Hopelessness.

Beck hopelessness scale -7 reliability and content validity

In our cohort, the Cronbach's alpha coefficient of reliability for the Beck Hopelessness Scale -7 was 0.82. The inter-item correlations among the three items ranged from 0.21 to 0.64. "My future seems dark" and "all I can see ahead of me is unpleasantness rather than pleasantness" showed the highest inter-item correlation coefficients (0.64), whereas "in the future, I expect to succeed in what concerns me the most" and "it is very unlikely that I will get any real satisfaction in the future" reported some of lowest inter-item correlation coefficients. All correlations were significant at the 0.001 level (Table 2). With respect to content validity, the original English versions of the

instruments were first translated into Chinese by a bilingual research team. Due to the vast linguistic diversity of our study population, the Chinese version was then back translated by bilingual and bicultural investigators fluent in dialects including Mandarin and Cantonese to confirm consistency in the meaning of the Chinese version with the original English version. Both written scripts (traditional and simplified Chinese characters) were subsequently examined. A group of community stakeholders led by an experienced bilingual and bicultural geriatrician then went over the wording of the Chinese versions to ascertain that the meanings of the items in Chinese conveyed the meanings to Chinese older adults and to ensure validity.

Scale items	Alpha if item deleted	1	2	3	4	5	6	7
In the future, I expect to succeed in what concerns me the most	0.81	1						
My future seems dark	0.78	0.42***	1					
All I can see ahead of me is unpleasantness rather than pleasantness	0.78	0.30***	0.64***	1				
I don't expect to get what I really want	0.71	0.24***	0.35***	0.40***	1			
I have great faith in the future	0.78	0.35***	0.47***	0.49***	0.38***	1		
It is very unlikely that I will get any real satisfaction in the future	0.8	0.21***	0.36***	0.43***	0.45***	0.43***	1	
I can look forward to more good times than bad times	0.8	0.42***	0.42***	0.39***	0.25***	0.50***	0.34***	1

* p< 0.05, **p<0.01, *** p<0.001

Table 2: Beck Hopelessness Scale Item-total Correlations and Correlation Coefficients.

Presence of specific symptoms of hopelessness

With respect to specific feelings of hopelessness, 20.0% of the participants reported that it was very unlikely that they will get any real satisfaction in the future, 17.3% reported that they did not have great faith in the future, 15.5% did not expect to get what they really wanted, and 12.4% did not expect to succeed in what concerns them the most (Table 3). A total of 12.2% of the participants cannot look forward to more good times than bad times; 11.3% of the participants reported that they can only see unpleasantness rather than pleasantness; and 9.2% of the participants felt that their future seemed dark.

Correlation between socio-demographic factors and hopelessness

Age, years in the U.S., years in the community were positively correlated with feelings of hopelessness, whereas marital status, living arrangement, country of origin, overall health status, quality of life, health changes over the last year were negatively correlated with hopelessness among participants (Table 4). Being older ($r=0.13$, $p<0.001$), being unmarried

($r=-0.09$, $p<0.001$), living with fewer people ($r=-0.05$, $p<0.01$), having been in U.S. for more years ($r=0.08$, $p<0.001$), having been in the community for more years ($r=0.05$, $p<0.01$), having lower overall

health status ($r=-0.27$, $p<0.001$), poor quality of life ($r=-0.20$, $p<0.001$), and worsened health status over the last year ($r=-0.15$, $p<0.001$) were more likely to report having hopelessness feelings.

Discussion

In this population-based study, the findings indicate that feelings of hopelessness are common among U.S. Chinese older adults. Moreover, being older, being unmarried, having been in the U.S. and in the community for more years, having lower level of overall health status and quality of life, and having worsened health over the last year are significantly correlated with more feelings of hopelessness in the study population.

Our findings suggest that hopelessness is prevalent in this study sample of community-dwelling older adults. A total of 40.9% participants reported feelings of hopelessness. In a sample of Chinese hospitalized cancer patients, the prevalence for hopelessness was 64.4% [25]. This higher prevalence may be due to the nature of a clinical sample of terminal cancer samples. However, to our knowledge, few studies have systematically study the prevalence of hopelessness among community-dwelling Chinese older adults in the U.S. Given that immigrant population are often at higher risks of health disparities, it is of critical importance to investigate distress among these vulnerable populations [26].

	Strongly Disagree (%)	Moderately Disagree (%)	Slightly Disagree (%)	Slightly Agree (%)	Moderately Agree (%)	Strongly Agree (%)
In the future, I expect to succeed in what concerns me the most	37 (1.2)	110 (3.6)	233 (7.6)	738 (24.0)	948 (30.8)	1,013 (32.9)
My future seems dark	1,425 (46.1)	859 (27.8)	523 (16.9)	190 (6.1)	66 (2.1)	30 (1.0)
All I can see ahead of me is unpleasantness rather than pleasantness	1,185 (38.2)	992 (32.0)	574 (18.5)	237 (7.6)	82 (2.6)	34 (1.1)
I don't expect to get what I really want	1,027 (33.3)	917 (29.7)	661 (21.4)	309 (10.0)	124 (4.0)	47 (1.5)
I have great faith in the future	61 (2.0)	162 (5.3)	307 (9.9)	796 (25.8)	945 (30.6)	816 (26.4)
It is very unlikely that I will get any real satisfaction in the future	855 (27.8)	926 (30.1)	683 (22.2)	382 (12.4)	172 (5.6)	61 (2.0)
I can look forward to more good times than bad times	35 (1.1)	113 (3.7)	228 (7.4)	637 (20.6)	937 (30.3)	1,144 (37.0)

Table 3: Presence of Hopelessness.

In addition, hopelessness may be attributed to the high level of fatalism heavily influenced by Chinese cultural doctrines. Previous studies demonstrate that Chinese older adults often possess a sense of fatalism for illness prevention and intervention, and that the sentiment that the lack of control of life and death may predominantly prevent Chinese older adults from seeking timely treatment and medical compliance [27]. In a population-based study of Chinese population in Hong Kong, about 20% of suicidal ideation and attempts was attributable to hopelessness [12]. Among the PINE study cohort, the prevalence of suicidal ideation in the last two weeks, in the past twelve months and in life time was 3.5%, 4.8% and 9.4%, respectively. It is also reported that older age, female sex, lower education levels, lower income levels, living with fewer household members, lower overall health status, poorer quality of life, and worsened health changes over the last year were significantly correlated with suicidal ideation [28]. Additional analysis indicated that the level of perceived filial piety receipt from older adults' perceptive was associated with increased risk of suicidal ideation [29]. More research is needed to examine the temporal relationship between filial piety and suicidal ideation. In

addition, the association between suicide and hopelessness, which may likely be further intensified by cultural conceptualization of health and illness, warrants further attention in the Chinese population.

Our findings also suggest that lower level of overall health status, poorer quality of life, and worsening health over the last year are significantly correlated with higher levels of hopelessness among U.S. Chinese older adults. Relationship between levels of hopelessness, distress, and quality of life is often examined in the clinical setting including patients with palliative care, patients with cancer, and patients at the end-of-life care setting. These previous reports suggest that quality of life is often predicted by the level of hopelessness and clinical characteristics [30,31]. Our report further suggests that the sentiment of hopelessness is also negatively correlated with self-reported health variables in a community-dwelling sample of Chinese older adults. Future studies are warranted to examine the relationship between hopelessness, health conditions, and specific comorbidities among older population.

	Age	Sex	Edu	Income	MS	Living	Children	Yrs in U.S.	Yrs in com	Origin	OHS	QOL	HC	Hopelessness
Age	1													
Sex	0.01	1												
Edu	-0.12***	-0.21***	1											
Income	0.05**	0	0.01	1										
MS	-0.33***	-0.32***	0.22	-0.03	1									
Living	-0.35***	-0.07***	0.02	0.16***	0.24***	1								
Children	0.32***	0.09***	-0.38***	0	-0.13***	-0.07***	1							
Yrs in U.S.	0.35***	0.03	-0.10***	0.35***	-0.2***	-0.31***	0.15***	1						
Yrs in com	0.23***	0.02	-0.11***	0.24***	-0.13***	-0.18***	0.10***	0.66***	1					

Origin	0.04*	-0.01	-0.08***	-0.2	0.05**	0.05**	0.04*	-0.2***	-0.15***	1				
OHS	0.08***	0.06**	-0.06***	-0.12***	-0.05**	0	0	0.01	-0.05*	0.03	1			
QOL	-0.06***	-0.05**	-0.09***	-0.08***	0.03	0.01	-0.04*	0	0.02	0.04*	0.32***	1		
HC	0.11***	0.03	-0.02	-0.05**	-0.07***	-0.01	0.02	0.04*	-0.03	0	0.35***	0.15***	1	
Hopelessness	0.13***	0	-0.01	-0.03	-0.09***	-0.05**	-0.01	0.08***	0.05**	-0.05*	-0.27***	-0.20***	-0.15***	1

Notes: Edu=Education; Children=Number of Children; MS=Marital Status; Living=Living Arrangement; Yrs in U.S. =Years in the US; Yrs in com=Years in the Community; Origin=Country of Origin; OHS=Overall Health Status; QOL=Quality of Life; HC=Health Changes over the Last Year

* p<0.05, **p<0.01, *** p<0.001

Table 4: Correlations between Hopelessness and Socio-Demographic Variables.

Our finding further suggest that brevity and the Beck Hopelessness Scale -7 worked well in the less acculturated group of Chinese American older adults, and may be suitable for detecting feelings of hopelessness in population-based surveys. Whereas suicidal older adults may tend to have negative expectancies regarding their future, they may likely to see life is not worth living. It is of critical important to consider how hopelessness influences the formation of suicidal thoughts, and consider integrating the measurement as part of the clinical screening procedure for older adults with depressive symptoms.

The result of this study should be interpreted with limitations. First, the PINE study sample is representative of Chinese older adults in the greater Chicago. Caution is advised when generalizing from these findings to other Chinese American older populations in the country or in Asian societies. Future research is needed to systematically compare the levels of hopelessness among global Chinese population. In addition, the present research predominately used quantitative methodology, which namely cannot explore the subjective experiences of older adults. Future research employing mixed-method approach is needed to enlighten the cultural conceptualization of hopelessness among U.S. Chinese older adults. Third, despite the merit of survey methodology in quantifying prevalence of hopelessness, the use of questionnaire may not be suitable to tease apart cultural perceptions and/or help-seeking behaviors toward feelings of hopelessness. Future research employing mixed methods is needed to expand our understanding on hopelessness. Last, this study is cross-sectional designed, and we could not postulate on the potential temporal relationships. Future longitudinal studies are called for to examine the risk factors and outcomes associated with hopelessness in Chinese older adults.

Our study has several practice implications. Suicide interventions designed specifically to promote hope in the Chinese aging population may be effective in reducing suicide risk. Aging service, health care providers and community providers can play an important role in promoting psychological well-being by increasing the sense of hope among community-dwelling older adults. Prior studies show that Chinese older adults exhibit highest suicide rate compared to other ethnic/racial groups [16,17]. Increased attention for psychosocial aspects such as the relevancy of promoting hope in late life may represent an important target for suicide prevention [23]. Screening for hopelessness among Chinese older adults may increase healthcare professionals' ability to identify older adults at greatest risk of self-

harm. In addition, prior studies in clinical settings also demonstrate that the association between depression and suicidal ideation was stronger within higher levels of hopelessness [3]. Thus it is important to simultaneously consider depressive symptoms and hopelessness when treating suicidal ideation in late-life among older patients.

In addition, hopelessness is a critical aspect of depression that may be particularly important in older adults because it reflects appraisals about the future. Mortality rates were reported as being higher for older adults who reported as hopelessness, as compared for those who were hopeful. Concerted efforts from community organizations and health care management professionals, aging services providers to care and reach out to older adults are needed. Example may include regular home visits, phone calls, or bilingual/ bicultural community events. Systematic outreach to assess and support older adults with high-risk of hopelessness in improving life conditions and needs that can promote hope for the future are called for, especially older adults who are older, living alone or with fewer people, widowed, or with worsening health.

Conclusions

Hopelessness is common in the U.S. Chinese older population. Age, years in the U.S., and years in the community were significantly and positively correlated with any hopelessness, while overall health status, quality of life, and health changes over the last year were significantly and negatively correlated with any feelings of hopelessness. This study necessitates developing research, interventions and policies to promote psychological well-being in U.S. Chinese Aging populations. Future studies should be conducted to understand the risk factors and outcomes associated with hopeless in U.S. Chinese old adults.

Acknowledgements

Dr. Dong was supported by National Institute on Aging grants (R01 AG042318, R01 MD006173, R01 CA163830, R34MH100443, R34MH100393 & RC4 AG039085), Paul B. Beeson Award in Aging, The Starr Foundation, American Federation for Aging Research, John A. Hartford Foundation and The Atlantic Philanthropies.

References

1. Stotland E (1069) *The Psychology of Hope*. San Francisco: Jossey-Bass.

2. Beck AT, Steer RA, Kovacs M, Garrison B (1985) Hopelessness and eventual suicide: a 10-year prospective study of patients hospitalized with suicidal ideation. *Am J Psychiatry* 142: 559-563.
3. Uncapher H, Gallagher-Thompson D, Osgood NJ, Bongar B (1998) Hopelessness and suicidal ideation in older adults. *Gerontologist* 38: 62-70.
4. Beck AT, Steer RA (1988) *Manual for the Beck Hopelessness Scale*. San Antonio, Texas: Psychological Corp.
5. Everson SA, Kaplan GA, Goldberg DE, Salonen JT (2000) Hypertension incidence is predicted by high levels of hopelessness in Finnish men. *Hypertension* 35: 561-567.
6. Szanto K, Reynolds CF 3rd, Conwell Y, Begley AE, Houck P (1998) High levels of hopelessness persist in geriatric patients with remitted depression and a history of attempted suicide. *J Am Geriatr Soc* 46: 1401-1406.
7. Vannoy SD, Duberstein P, Cukrowicz K, Lin E, Fan MY, et al. (2007) The relationship between suicide ideation and late-life depression. *Am J Geriatr Psychiatry* 15: 1024-1033.
8. Brown GK, Beck AT, Steer RA, Grisham JR (2000) Risk factors for suicide in psychiatric outpatients: a 20-year prospective study. *J Consult Clin Psychol* 68: 371-377.
9. Cheng ST, Chan AC (2006) Filial piety and psychological well-being in well older Chinese. *J Gerontol B Psychol Sci Soc Sci* 61: P262-269.
10. Tanaka E, Sakamoto S, Ono Y, Fujihara S, Kitamura T (1996) Hopelessness in a community population in Japan. *J Clin Psychol* 52: 609-615.
11. Han Y, Yuan J, Luo Z, Zhao J, Wu J, et al. (2013) Determinants of hopelessness and depression among Chinese hospitalized esophageal cancer patients and their family caregivers. *Psychooncology* 22: 2529-2536.
12. Cheung YB, Law CK, Chan B, Liu KY, Yip PS (2006) Suicidal ideation and suicidal attempts in a population-based study of Chinese people: risk attributable to hopelessness, depression, and social factors. *J Affect Disord* 90: 193-199.
13. Census Bureau (2010) *Census Demographic profile*. 2011. Washington D.C., U.S. Census Bureau.
14. Shinagawa L. *A portrait of Chinese American*. University of Maryland.
15. Ho DY-F, Chiu CY (1994) Component ideas of individualism, collectivism, and social organization: An application in the study of Chinese culture. *Individualism and collectivism: Theory, method, and applications*. Thousand Oaks, CA, US: Sage Publications, Inc 137-156.
16. Centers for Disease Control and Prevention. *Suicide: Facts at a glance*. 2010. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Ref Type: Report
17. Foo L (2003) *Asian American Women: Issues, concerns, and responsive human and civil rights advocacy*. Lincoln, NE: IUniverse.
18. Liu WT, Yu E (1985) Asian/Pacific American Elderly: Mortality differentials, health status, and use of health services. *Journal of Applied Gerontology* 4: 35-64.
19. Dong X, Wong E, Simon MA (2014) Study design and implementation of the PINE study. *J Aging Health* 26: 1085-1099.
20. Dong X, Chang E, Wong E, Wong B, Skarupski KA, (2010) Assessing the health needs of Chinese older adults: Findings from a community-based participatory research study in Chicago's Chinatown. *Journal of Aging Research* 2010.
21. Dong X, Chang ES, Wong E, Simon M (2011) Working with culture: lessons learned from a community-engaged project in a Chinese aging population. *Aging Health* 7: 529-537.
22. Simon M, Chang E, Rajan K, Welch M, Dong X, et al. (2014) Demographic characteristics of U.S. Chinese older adults in the greater Chicago area: Assessing the representativeness of the PINE study. *Journal of Aging and Health*.
23. Modesti PA, Bianchi S, Borghi C, Cameli M (2014) Cardiovascular health in migrants: current status and issues for prevention. A collaborative multidisciplinary task force report. *Journal of Cardiovascular Medicine* 15: 683-692
24. Liang W, Yuan E, Mandelblatt JS, Pasick RJ (2004) How do older Chinese women view health and cancer screening? Results from focus groups and implications for interventions. *Ethn Health* 9: 283-304.
25. Dong X, Chen R, Wong E, Simon MA (2014) Suicidal ideation in an older U.S. Chinese population. *J Aging Health* 26: 1189-1208.
26. Simon MA, Chen RJ, Dong XQ (2014) The association between suicidal ideation and filial piety: Findings from a community-dwelling older Chinese population. *Journal of Gerontology: Medical Sciences*.
27. Mystakidou K, Tsilika E, Parpa E, Pathiaki M, Galanos A, et al. (2008) The relationship between quality of life and levels of hopelessness and depression in palliative care. *Depress Anxiety* 25: 730-736.
28. van Laarhoven HW, Schilderman J, Bleijenberg G, Donders R, Vissers KC, et al. (2011) Coping, quality of life, depression, and hopelessness in cancer patients in a curative and palliative, end-of-life care setting. *Cancer Nurs* 34: 302-314.
29. Neufeld E, O'Rourke N (2009) Impulsivity and hopelessness as predictors of suicide-related ideation among older adults. *Can J Psychiatry* 54: 684-692.
30. Stern SL, Dhanda R, Hazuda HP (2001) Hopelessness predicts mortality in older Mexican and European Americans. *Psychosom Med* 63: 344-351.
31. Ciccone MM, Aquilino A, Cortese F, Scicchitano P, Sassara M, et al. (2010) Feasibility and effectiveness of a disease and care management model in the primary health care system for patients with heart failure and diabetes (Project Leonardo). *Vasc Health Risk Manag* 6: 297-305.