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Abstract

We aimed to explore older people's attitudes toward aging and to further examine associations of such attitudes with their well-being in a Chinese society—Taiwan. Face-to-face interviews were conducted to collect data using structured questionnaires from a random sample of community older people ($N = 316$). We found that (a) older people possessed positive attitudes toward aging in general, but there were some group attitudinal differences associated with education attainment and urban residence; (b) older age, fewer social support, and less positive attitudes toward aging were related to more depressive symptoms; (c) younger age, greater social support, greater community participation, and more positive attitudes were related to higher happiness. The associations of positive attitudes with well-being were found after controlling for those of social support and community participation.

Keywords

attitudes toward older people, social support, community participation, well-being

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Aging is a pressing problem for many countries in this century, especially for a developing country such as Taiwan. In Taiwan, advance in medical science and technology, successful promotion of health care, and material prosperity, coupled with the gradual demise of Chinese family values and lifestyle, have sent the birth rate in a steady decline but life expectancy in a steady increase. Consequently, as early as in September 1993, Taiwan was officially an aging society as the proportion of those aged above 65 had exceeded 7% of the country's population (Lin, 2002). However, systematic research on aging topics in Taiwan is still in its infancy and relies heavily on Western theories and findings. Furthermore, most research efforts have been devoted to medical gerontology and other aging-related medical care topics, whereas psychosocial issues of normative aging are generally overlooked. Although there has been some research pointing out the buffering effects of social support for the Chinese older people in Taiwan (e.g., Hu, 1992; Lu & Hsieh, 1997), older people's self-definition and perception of aging have largely been ignored so far. Our purpose of this study therefore was to explore a basic issue in social gerontology from the older people's point of view: Can aging be a positive experience? If yes, are positive attitudes toward aging beneficial for personal well-being, over and beyond effects of known protectors such as social support and social embeddedness?

Is it Possible to Experience Aging as a Positive Process?

As stated earlier, for many years, gerontological research was concerned nearly exclusively with problems of aging and older age and has contributed to the problematization of older age and the negative image of the aging process. However, work in social gerontology has endeavored to deconstruct prevailing negative aging stereotypes, that is, *ageism* in the society (Polizzi & Millikin, 2002), to further promote educational interventions aiming at fostering positive attitudes toward older people (Funderburk, Damron-Rodriguez, Levy Storms, & Soloman, 2006) and the aging process (Harris & Dollinger, 2001).

Among older people, researchers have also recently found that the experience of aging is neither uniform nor necessarily negative. As part of the Berlin Aging Study, Freund and Smith (1999) collected spontaneous self-definition in a heterogeneous sample of 516 participants (aged 70-103). The content of the self-definition revealed that these older adults still view themselves as active and present-oriented, and overall, there were more positive than negative self-evaluations. More important perhaps, positive emotional well-being was associated with naming more and richer self-defining domains. Another study found that when defining "old," older people focused less on appearance or body image,

more on health status and psychological factors such as loss of autonomy (Logan, Ward, & Spitze, 1992).

In Taiwan, social gerontological research on self-perception of older people or normative aging experiences is very rare. Two notable exceptions are a large scale survey of young, middle-aged and older adults (Lee, 1999), and a study of older adults with medical conditions (Lu & Chang, 1998). Lee's study (1999) focused on the general impression of life in middle to late adulthood and found that Taiwanese people tended to perceive old age rather negatively, including losses in health, status, relationships, and work. Furthermore, more negative and undesirable traits and behaviors were attributed to older people than to middle-aged people. These findings largely corroborate other studies in Taiwan showing that people of different age groups all possessed generally negative attitudes toward older people (Lin, 1987, 1993; Lu & Kao, 2009). Apparently, ageism is still prevalent in the Taiwanese society.

Although the above mentioned empirical results seem to depict a general negative image of the old age and older people held by a wide range of Taiwanese people, a fine-grained analysis did reveal that some positive aspects of aging were acknowledged both by the older people themselves (Lu & Kao, 2009) and by members of other age groups (Lee, 1999; Lin, 1993). Specifically, positive attitudes and traits pertaining to psychological and cognitive aspects of aging, such as rich experiences, wisdom, and authoritative status, were attributed to older persons in aforementioned studies.

What about older people's own experience of aging then? Lu and Chang (1998) argued that aging is not an inevitably negative experience even for those with compromised health. They found that older age, male, living alone, and being financially dependent were risk factors of worsened health, whereas female, living alone, and being financially dependent were risk factors of lowered life satisfaction in a sample of community older adults (aged 65-90). Although participants in that study all had at least one chronic medical condition, authors observed that they nonetheless maintained good functioning in daily activities, perceived little interference of illnesses with their normal life, reported fairly good psychological health and optimistic outlooks in life. Such more encouraging positive experiences with aging corroborate Lu and Kao's (2009) most recent finding that older people indeed possessed more positive attitudes regarding cognitive and psychological aspects of aging than nonold adults in Taiwan. It needs to be noted though that the sample of older persons included in the study was rather small ($N = 30$), as the researchers were aiming at a wide spectrum of the general population.

Adopting a different research paradigm, a rare qualitative research reported 22 in-depth interviews with community older adults in Taiwan (Lu & Chen, 2002).

Researchers noted that many of their interviewees held positive attitudes toward their family roles in later life. Such positive self-perceptions for old age was rooted in the rich life experiences, in the belief that they can teach, guide, and help their children and grandchildren, and in the prevailing societal value of respecting the old and ascribing authority to the old in family. From these rich personal accounts of aging in the family, researchers concluded that given adequate health and financial assurance, Taiwanese older people generally held positive attitudes toward the impending aging and were able to adapt to the family role transition with optimism.

Synthesizing these strands of research, we argue that aging can be experienced positively in a Chinese culture. At the society level, the prevailing social value of filial piety and social norm of respecting the old in a Chinese society help to strengthen status and prestige of older people both in and beyond the family domain (Lu & Chen, 2002). At the individual level, the possibility of maintaining a positive outlook for the old age and experiencing aging positively is supported by a theoretical perspective emphasizing life course development (Erickson, 1982). As one negotiates with specific developmental tasks through the course of life, the process of aging should not necessarily be detrimental to well-being; instead there even exists possibilities for positive change and personal growth. We thus hypothesize

Hypothesis 1: Older people in Taiwan would possess positive attitudes toward aging.

What Are Important Social and Personal Resources for a Successful Aging?

To achieve a successful aging, personal and social resources need to be mobilized. One purpose of the present study was to examine the incremental value of positive attitudes toward aging over and beyond some known protectors. Social support is one such known protector. Indeed, social epidemiological studies focusing on older people have clearly pointed out that diseases and illnesses are accounting for less and less variance in mortality, whereas psychosocial factors can to some extent increase an individual's resistance to pathological agents or minimize their adverse effects on health and well-being (Cassel, 1976; Hanson, Isacson, Janson, & Lindell, 1989; Kasl & Berkman, 1981). Social support is one such protective psychosocial factor. Research in this area has already accumulated a large body of empirical evidence and a wide variety of theoretical formulations such as stress-resources models (Hobfoll, 1989; Holahan & Moos, 1986), the

convoy model (Kahn & Antonucci, 1980), and the support-efficacy model (Antonucci & Jackson, 1987).

Focusing on older people, empirical evidence has generally supported the beneficial effects of social support and social integration on health and well-being in the West and in Taiwan. For instance, Curtrona, Russell, and Rose (1986) found in a longitudinal study that social support could predict physical health and buffer the impact of life stress on mental health for older people living in the community. In another community study, Coe, Wolinsky, Miller, and Prendergast (1984) found that social integration or network-embeddedness was related to health of older people.

One Taiwanese community study has also found that social support had both direct protective effects on physical and mental health, and mediating effects linking perceived control to health (Lu & Hsieh, 1997). In another Taiwanese study, social support had incremental value in predicting self-reported health and life satisfaction, after controlling for age, illness, and level of daily functioning (Lu & Chang, 1997). Earlier, Hu (1992) found that social support from the family protected older people from mental illnesses. Huang (1992) too found that social support was the most important predictor of life satisfaction, more powerful than self-reports of health. Thus social support and social integration (or community participation) as social resources have shown unequivocal benefits for positive aging, that is, adjustment in the old age.

Personal resources such as personality, coping, values, and attitudes are also theorized as important protectors against stress (Holahan & Moos, 1986). For instance, Western studies have found that perceived control was positively related to perceived health and negatively related to morbidity, rate of hospitalization, and mortality (Menec & Chipperfield, 1997; Rodin & Timko, 1992). In Taiwanese studies, researchers have also found that a greater sense of control was associated with lower rates of mental health symptoms for community older people. Furthermore, perceived control was also associated with better self-reported physical health through generating a higher level of social support (Lu & Hsieh, 1997). However, potential contributions of values and attitudes to well-being, especially those concerning older people's own perception and attitudes toward aging, have received little research attention in Chinese societies including Taiwan. Several recent Western studies though have noted the benefits of positive self-perception for older people. For instance, Logan et al. (1992) found that positive aging perception was associated with well-being for older adults. Moor, Zimprich, Schmitt, and Kliegel (2006) too found that positive aging self-concept was related to subjective health for older people. Levy, Slade, Kunkel, and Kasl (2002) reported that positive perceptions of aging could even prolong life for 7.5 years for

participants in the Ohio Longitudinal Study of Aging and Retirement (OLSAR). Unfortunately, there has been very scarce research looking at positive attitudes toward aging as a personal resource for successful aging in a Chinese society. One notable exception is a recent study looking at university students attitudes toward older people in Mainland China (Tan, Zhang, & Fan, 2004). These authors found that students' attitudes were in the positive and neutral ranges and that older males were perceived more favorably than older females. Such attitudes tending toward the positive side were explained in the Chinese cultural tradition of respecting the old, especially older males. Although neither this recent study nor an earlier one looking at positive attitudes toward aging in Mainland China (Levy & Langer, 1994) went further to explore the potential values of such positive attitudes for well-being, they both set up examples of successful aging in a Chinese society.

Taking another angle, our earlier anthropological field work with Taiwanese older people gave us the impression that those who maintained a positive outlook for old age were those who continued to be active in their communities and enjoyed a higher quality of life (Lu & Chen, 2002). This finding suggests that active participation in community life may be another psychosocial protector for well-being of Chinese older people. Furthermore, community participation could be an expression of one's usefulness in passing on life experiences and wisdom, which is expected by others and perceived by older people themselves in Chinese societies, as previous studies revealed. We thus hypothesize

Hypothesis 2: Positive attitudes toward aging would be associated with well-being of older people in Taiwan, and this association would remain even after controlling for social support and community participation.

Method

Samples and Procedures

We combined face-to-face interviews with structured questionnaires to collect data from community-residing older people in Taiwan. Trained interviewers (students of social work and psychology) conducted home visits to randomly selected households with residing older persons aged above 60 years. According to the earlier cited nationwide survey (Lee, 1999), Taiwanese people generally regarded 60 as the defining age of being "old," not the official criterion of 65. To better represent this culture-specific psychological reality, we thus included people from 60 years of age onward in the present study. Specifically, we interviewed only people above the age of 60, and only one participant was

interviewed in each household surveyed. Interviews were conducted in one northern county and one southern county of the country. The overall completion rate was 90%.

The sample ($N = 316$) consisted of 147 men and 156 women, with a mean age of 69.65 years ($SD = 8.11$). About half (52.7%) of our participants had some elementary school education, with an average formal education of 8.87 years ($SD = 3.45$). Most of them (62.7%) lived with other family members, and in rural areas (60.7%).

Instruments

Attitudes Toward Aging

The “Older People Scale” (OPS, Lu & Kao, 2009) is the first standardized scale developed specifically for the Chinese people, assessing attitudes toward older people in general. When responding to the same items, young and older adults may base their opinions on different information. Specifically, older respondents are more likely to draw information from their own aging experiences, thus scale scores may reflect to some extent their attitudes toward aging itself. However, OPS is more a measure of attitudes toward older people. Lu and Kao (2009) have provided evidence of its reliability, validity of its four-factor structural model, convergent validity with an existing Western scale (Aging Semantic Differential; Polizzi & Millikin, 2002), and criterion validity in predicting intentions of interacting with older people in daily life. The 22-item brief version was used in this study. With “In general, older people are . . .” as the stem, four aspects of attitudes were assessed: Appearance and physical characteristics (5 items, e.g., “Weak and illness-prone,” reversed score), Psychological and cognitive characteristics (7 items, e.g., “possessing problem-solving ability”), Interpersonal relations and social participation (7 items, e.g., “disengaged from the society”), and Work and economic safety (3 items, e.g., “financially poor,” reversed score). Each item was rated on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). A higher score indicated more positive attitudes toward aging. In the present study, internal consistency alphas were .82, .83, .84, and .74, respectively, for the four subscales, and .93 for the aggregated scale.

Social Support

The 18-item Functional Social Support Scale was specifically developed for an older population (Hanson et al., 1989), and adopted earlier for use with Chinese community older people (Lu & Hsieh, 1997). The Chinese version has

demonstrated good reliability, construct validity, and criterion validity in predicting health and satisfaction of community older people (Lu & Chang, 1997; Lu & Hsieh, 1997). Important facets of social support are assessed, including material and tangible support (e.g., "Are there relatives or friends who can take you to the doctor if you are ill?"), social participation (e.g., "Do you take part in important activities?"), emotional support (e.g., "Will someone praise you for what you do?"), and information support (e.g., "Are there relatives or friends who you can consult for personal problems?"). Each item was checked with a forced choice format (1 = *Yes*, 0 = *No*). Following the scoring procedure suggested by the scale developers, a higher aggregated score indicated more social support. In the present study, internal consistency alpha was .76 for the aggregated scale.

Community Participation

Seven items were developed to assess community participation of older people. Aspects of family involvement (e.g., "helping with home maintenance"), community activities (e.g., "unpaid voluntary work"), educational activities (e.g., "taking classes"), and work involvement (e.g., "holding a paid job") were covered, and respondents checked with a forced choice format (1 = *Yes*, 0 = *No*). Exploratory factor analysis revealed that only one factor (Eigen value = 5.73) could be extracted accounting for 59% of the total variance. All seven items loaded on this single factor ranging from .50 to .75. Thus an aggregated score was used to indicate community participation by older people. In the present study, internal consistency alpha was .73 for the scale.

Well-Being

Two indicators were used to assess well-being of older people: depression and happiness. *Depression* was measured by 11 items from the CES-D adopted for the Chinese people (Cheng & Chien, 1984). Sample items are "Don't feel like eating, bad appetite," and "Feeling sad and miserable." Respondents rated each item (symptom) on a 4-point scale (0 = *never or very seldom*, 3 = *almost always*). A higher total score indicated a higher level of depressive symptoms. In the present study, internal consistency alpha was .84 for the depression scale. *Happiness* was measured by 4 items from the mini version of Chinese Happiness Inventory (CHI; Lu, 2008a), developed and repeatedly tested for use with the Chinese populations (Lu, 2005). A sample item is "I am satisfied with most things in my life." Respondents rated each item on a 4-point scale (0 = *strongly disagree*, 3 = *strongly agree*). A higher total score indicated a

higher level of happiness. In the present study, internal consistency alpha was .83 for the happiness scale.

Results

To test Hypothesis 1, we computed item mean for the aggregated score on OPS and those of its four subscales. All five mean scores were above the mid-point of 4 on the 1-7 scale, in the positive ranges. We further tested the significance of these mean scale scores from 4 using one-sample t test, and found all the differences were statistically significant. These mean scores were: Total scale: 4.74 ($SD = 1.09$, $t = 11.54$, $df = 284$, $p < .001$); Appearance and physical characteristics: 4.61 ($SD = 1.40$, $t = 7.64$, $df = 306$, $p < .001$); Psychological and cognitive characteristics: 4.81 ($SD = 1.18$, $t = 11.79$, $df = 298$, $p < .001$); Interpersonal relations and social participation: 4.72 ($SD = 1.22$, $t = 10.15$, $df = 296$, $p < .001$); and Work and economic safety: 4.89 ($SD = 1.34$, $t = 11.67$, $df = 309$, $p < .001$). In fact, all 22 individual item scores were statistically significantly from the midpoint of 4, with t s ranging from 4.06 (*nagging*) to 13.38 (*frugal*). Thus our Hypothesis 1 was supported.

We further examined group differences on attitudes across gender, age, education attainment, urban residence, and living arrangement. Table 1 presents the results of one-way ANOVAs used to compare each of these subgroups. Because scores for the four OPS subscales were significantly correlated with one another (see Table 2), only the aggregate score of overall aging attitudes was used for creating Table 1. Results showed that males were not different from females, the "young old" (aged 60-74) were not different from the "old old" (aged 75 and above), and those living with family were not different from those living alone in their overall aging attitudes. However, education and urban residence had advantages of a more positive outlook for the old age. Specifically, those who were educated above elementary school level and living in urban areas avowed more overall positive attitudes toward aging.

Before testing Hypothesis 2, we computed Pearson correlations among main research variables. Table 2 reports correlation results along with scale means and standard deviations. Attitudes toward aging, social support, and community participation all significantly correlated with depression and happiness. All relations were in the expected direction. To reiterate, the four aspects of aging attitudes were very highly interrelated (r s ranged from .54 to .74). To avoid possible multicollinearity problem, we used only the aggregate score of overall aging attitudes in further regression analysis.

As for demographic variables, age, education years, and urban residence correlated with aging attitudes, social support, community participation, depression,

Table 1. Attitudes Toward Aging: Group Differences

	Overall attitudes toward aging	
	M	SD
Male	104.17	24.95
Female	104.64	23.07
<i>F</i> (<i>df</i>)	0.03 (1, 282)	
Elementary school education	101.72	24.34
Above elementary school	107.34	23.17
<i>F</i> (<i>df</i>)	3.96* (1, 283)	
Urban residence	107.90	22.43
Rural residence	101.99	24.73
<i>F</i> (<i>df</i>)	4.09* (1, 279)	
Living with family	106.24	22.59
Living alone	101.74	25.85
<i>F</i> (<i>df</i>)	2.34 (1, 280)	
60-74 years of age	105.88	24.14
75 and above	100.47	23.11
<i>F</i> (<i>df</i>)	2.89 (1, 282)	

* $p < .05$.

and happiness. Living with family also correlated with social support, community participation, and happiness. In addition, females reported greater community participation than males.

We then conducted a series of hierarchical regression analyses to test our Hypothesis 2. We compared two models for each indicator of well-being separately: depression and happiness. For Model 1, in the first step of regression, we entered demographic variables of sex, age, education years, urban residence, and living with family. Second, we entered social support and community participation. For Model 2, the first two steps were the same as in Model 1, at Step 3, we entered overall attitudes toward aging.

The results reported in Table 3 show that age was consistently related to well-being: age had a positive relation with depression and a negative relation with happiness. Social support had a negative relation with depression and a positive relation with happiness. Community participation had a positive relation with happiness, and a negative relation with depression. Having controlled for effects of demographic variables, social support, and community participation, attitudes toward aging still had a negative relation with depression and a positive relation with happiness (Model 2s). Thus our Hypothesis 2 was supported. The combination of social support, community participation, and aging attitudes explained 21%-31% of variance on two indicators of well-being.

Table 2. Intercorrelations Among Main Variables

Variables	Sex	Age	EDU (yrs)	Urban	FAM	Total-AA	AP	PC	IS	WE	SS	CP	DEP	HAP
Sex	1.00													
Age	0.16**	1.00												
EDU (yrs)	0.24***	-0.16**	1.00											
Urban	0.00	-0.20***	0.38***	1.00										
FAM	-0.06	-0.11	0.06	0.15*	1.00									
Total-AA	-0.01	-0.18**	0.12*	0.12*	0.09	1.00								
AP	0.00	-0.14*	0.19***	0.18**	0.14*	0.84***	1.00							
PC	0.02	-0.18**	0.15**	0.11	0.11	0.90***	0.69***	1.00						
IS	0.01	-0.12*	0.09	0.09	0.07	0.90***	0.63***	0.74***	1.00					
WE	-0.02	-0.12*	0.07	0.00	-0.07	0.75***	0.56***	0.54***	0.63***	1.00				
SS	-0.02	-0.43***	0.28***	0.17*	0.15*	0.49***	0.41***	0.48***	0.43***	0.24**	1.00			
CP	-0.14*	-0.43***	0.29***	0.19**	0.27***	0.38***	0.33***	0.42***	0.37***	0.18**	0.60***	1.00		
DEP	-0.02	0.25***	-0.13*	-0.20**	-0.10	-0.40***	-0.38***	-0.37***	-0.33***	-0.39***	-0.50***	-0.31***	1.00	
HAP	-0.03	-0.25***	0.20***	0.17*	0.11*	0.51***	0.46***	0.51***	0.44***	0.32***	0.54***	0.51***	-0.49***	1.00
Scale Mean	0.49	69.58	8.87	0.41	0.63	104.36	23.05	33.66	33.04	14.66	13.38	3.30	8.82	5.52
SD	0.50	8.06	3.45	0.49	0.48	23.92	6.99	8.29	8.56	4.02	3.29	1.94	6.50	2.63

Note: AP = appearance and physical characteristics; PC = psychological and cognitive characteristics; IS = interpersonal relations and social participation; WE = work and economic safety; Total-AA = attitudes toward aging (total score); SS = social support; CP = community participation; DEP = depression; HAP = happiness; Sex: 0 = female, 1 = male; Urban: 0 = rural, 1 = urban; FAM: 1 = living with family, 0 = living alone

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

Table 3. Hierarchical Regression Analysis Predicting Well-Being

Step	Predictors	Depression (Model 1)		Depression (Model 2)		Happiness (Model 1)		Happiness (Model 2)	
		ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β
1	Sex		-.06		-.06		.01		-.03
	Age		.23**		.22**		-.26**		-.20**
	Education yrs.		.08		-.03		.02		.15*
2	Urban residence		-.11		-.13		.07		.06
	Living with family	.09**	-.01	.09**	-.05	.10**	.02	.10**	.07
3	Social support	.17***	-.23**	.17***	-.20**	.38***		.31***	
	Community participation	.17***	-.48***	.17***	-.48***	.25***	.31***	.25***	.37***
3	Attitudes toward older people	.04*		.04*	-.20**			.06***	.29***
	Total R ²		.26		.30		.35		.41
Final F (df)			8.59*** (7, 167)		8.37*** (8, 165)		12.95*** (7, 169)		13.71*** (8, 165)

Note: Standardized coefficients β and F are taken from the final equation. Sex: 0 = female, 1 = male; Urban residence: 0 = rural, 1 = urban; Living with family: 1 = living with family, 0 = living alone
 * $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

The purpose of the present study was two-fold: to explore older people's attitudes toward aging and to further examine whether positive attitudes were associated with well-being in a Chinese society—Taiwan. It needs to be noted that because we used an indigenous measure of attitudes toward older people specifically developed for the Taiwanese, it would not be possible or appropriate to compare our results *directly* with those of Western studies when different measures were used. However, we could compare the trend of our findings against that revealed in existing Western studies. We found that in general Taiwanese older people possessed positive attitudes toward aging, with mean item scores above the theoretical midpoint of the rating scale. The little existing Taiwanese research found the preponderance of positive attitudes toward aging was confined to psychological and cognitive aspects, both viewed by older people themselves (Lu & Kao, 2009), and by other age groups (Lee, 1999; Lin, 1993). In other words, old age along with its rich life experiences, wisdom, and social prestige is to a certain extent represented in a positive light. However, we found in the present study that from older people's perspective, positive attitudes are not restricted to any one aspect of the aging process—they remain optimistic for aging in physical, psychological, social, and financial aspects. Our findings were consistent with Western studies showing overall positive self-evaluations among older people (Freund & Smith, 1999) and generally more favorable aging perceptions among older than younger people (Laditka, Fischer, Laditka, & Segal, 2004).

In Taiwan, there has been no study looking at older people's self-perception or their attitudes toward aging. However, two recent studies did systematically measure attitudes toward older people in Taiwan, using the same instrument as we did in the present study. Comparing our item mean (4.74, $SD = 1.09$) with those reported for the general population (4.23, $SD = 0.74$, $N = 991$; Lu & Kao, 2009), and with those reported for a sample of college students (4.46, $SD = 0.77$, $N = 391$; Lu, 2008b), differences were statistically significant ($t = 4.00$, $p < .001$; and $t = 7.29$, $p < .001$). These results confirmed that in the Taiwanese society, older people viewed aging more positively than their younger counterparts. Studies in Taiwan have already shown that people of various age groups except older persons themselves, all possessed some negative attitudes toward older people (Lee, 1999; Lin, 1987, 1993). In this respect, ample Western studies have demonstrated the beneficial effects of education programs on dismantling negative stereotypes and ageism (Funderburk et al., 2006; Harris & Dollinger, 2001); we in Taiwan need to be more rigorous in promoting and implementing such programs at school and in the community.

In the present study, we have also found some further group differences regarding attitudes toward aging. Generally, those who were better educated and urban-dwelling had more positive attitudes toward aging. These results corroborate the notion that aging is not a uniform experience (Lu & Chang, 1998) and some people fare better.

The advantages of education and status on well-being in the old age have been well-documented in the literature. For instance, Butler and Lewis (1982, p. 11) synthesized Western findings to conclude that “demographic data show conclusively that an increasing life expectancy follows in the wake of increasing income and status.” In Taiwan, education and urban-dwelling are indicators of higher social status and were found to have positive associations with health for older people (Lin, 1983; Lu & Hsieh, 1997). Lu and Chang (1998) conducted a more detailed analysis in a sample of community older adults with chronic medical conditions. They found that those who were older, living alone, and financially dependent were worse off in health and life satisfaction. Combining our current findings with those reported in the literature, we can compile a demographic profile of older persons who remain positive and are better adjusted to aging—better education, urban-dwelling, and financially secure. The added value of our present study is that we were the first to look at older people’s attitudes of aging, which might serve as a precursor for their subsequent adaptation. More specifically, if we can identify older people who are at risk of negative outlook for aging, such as those with minimal education, and living in rural areas, we can better target our educational and care resources to prevent health hazards and depressed emotional well-being.

We have found that attitudes toward aging were related to well-being, even after controlling for age, social support, and community participation. Furthermore, these associations were found on both positive (happiness) and negative (depression) indicators of well-being. Although positive attitudes were not the strongest predictor of well-being, its contributions to depression and happiness were largely independent from those of social support and community participation (comparing Model 1 and 2 in Table 3). Previous social gerontological research has firmly established the protective effects of social resources, such as social support and social integration or community participation (e.g., Antonucci & Jackson, 1987; Hanson et al., 1989; Holahan & Moos, 1986; Kahn & Antonucci, 1980), and personal beliefs of control (Lu & Hsieh, 1997; Rodin & Timko, 1992). We have extended the list of protectors to include positive attitudes, which is so far largely overlooked in Chinese studies. Our results compliment Western findings of attitudinal benefits on longevity (Levy et al., 2002) and emotional well-being (Logon et al., 1992). Together, these results serve to underline the importance of including personal resources such as positive attitudes and self-perceptions, as

well as social resources such as social support and community participation in the promotion of successful aging.

However, readers should still keep in mind that the present study has certain limitations. First, it is unfortunate that the survey did not collect data on older people's health, and it is possible that the influence between health and aging attitudes are bidirectional. Although health remains a viable alternative explanation for well-being, an earlier Taiwanese research found that social support was the most important predictor of life satisfaction (a proxy to happiness), more powerful than even self-reports of health (Huang, 1992). Another Taiwanese study with older adults with medical conditions also found that social support had comparable effects on mental symptoms (including depression) to impacts of illnesses (Lu & Chang, 1997). Thus controlling for social support in the present study may have taken out some effects of health. However, this alternative hypothesis needs to be explicitly investigated in the future.

Second, the study design was cross-sectional, thus no causal conclusions are legitimate. As stated above, the lack of explicit control for health poses a threat to the causal role of positive attitudes in determining well-being. Third, we interviewed older adults living in Taiwan. Although Taiwan is a culturally Chinese society and has preserved the Chinese heritage in terms of values and family life to a great extent, it is politically, economically, and psychologically different from mainland China (PRC; Lu, Cooper, Kao, & Zhou, 2003), thus our results should not be generalized to the vast population of older people in the PRC. Finally, our interviews were conducted using structured questionnaires. Future studies may consider employing qualitative methods to explore older people's attitudes, perceptions and lived experiences of aging in greater depth, so that a fuller and richer understanding of the aging process can be achieved from older people's own perspective.

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