


Household Assets, the Role of Government Assistance, and Depression Among Low-Income Families in Shanghai

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Abstract

As China's economy is rapidly changing from a planned to a capitalist economy, many families find themselves financially struggling. In some cases, conflicting values and attitudes may contribute to mental health challenges such as depression that would lead to further feelings of helplessness and immobilization. Using a random sample of 1006 low-income households from Pudong District of Shanghai, China, this study aims to examine the relationships between household assets, beliefs about government as the primary way to improve economic circumstances and self-reported depressive symptoms. In addition, this study investigates the mediation effects of beliefs that government is the best change agent for improved life circumstances on the relationship between household assets and depression. We found those who indicated that government was the main means for attaining a better life had significantly higher depression levels whereas higher numbers of household assets were associated with lower depression levels. We also found that viewing government as the most important change agent only partially mediated the relationship between household assets and depression ($p < .001$). Findings from this study support anti-poverty policies and social work related practice initiatives aimed at assisting low income families in China, in particular the need to address psychological as well as economic needs.

Keywords Household assets · Government assistance · Low income · Poverty · Depression · China

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1 Introduction

In spite of China's growing national gross domestic product, income inequality leaves many families behind. Much of the attention on poverty in China focuses on rural areas (Liu et al. 2016). Yet, individuals and families with low-incomes are also living in urban areas where they are daily reminded of the growing gap between the very rich and the poor. Billboards advertising luxury products, shopping malls, and high fashion abound in the urban areas stoking desires for material goods that, for many individuals, are out of reach. Even if luxury goods are taken out of the equation, motorized transportation and household conveniences, sometimes referred to as household assets, are much more available in China than even a decade ago changing what is perceived to be an acceptable standard of living. Choices as basic as marriage are often tied to whether or not the groom or his family can buy a home for the new couple in the midst of high priced urban housing markets.

Poverty is further complicated by the national household registration system, Hukou, that structures where people live, attend school, and circumscribes eligibility for public programs. Further, the hukou system imposes barriers between rural and urban areas by restricting in-country mobility and is tied to the family's location of origin. For example, although a child was born in an urban area from an in-country migrant family, this child will have a rural hukou because the parents have a rural hukou (Wu 2017; Wu and Wu 2013).

In-country migration, although technically not legal without the consent of the government, has brought low-income rural people into cities to fuel the growing economy thus providing more opportunity for earning money. Yet, the loss of the social safety net that follows migration, because of this groups' hukou status, puts these low income individuals at risk should a health care crisis or other hardship threaten their earning power (Chapman et al. 2013). Even for those with hukou linked to the urban area where they live and work, the distinction between parts of the city designated as urban and other areas that are labeled rural changes their access to services despite minimal real differences between the two contexts. Taken together, these realities may put the notion of a "good life" in Chinese cities greatly at odds with what low-income individuals can reasonably expect, a situation that may contribute to feelings of hopelessness or depression.

In addition to desires and expectations for a good life, attitudes toward the way society as a whole is organized may have a particular impact in China. Beginning in the 1980s, China began a dramatic shift from a "planned economy" in which the central government set a standard for most life domains and exerted high levels of control over individual choices. During this period, fewer differences between living standards of similarly situated groups existed. Therefore, although living standards may or may not have been seen as desirable, an individual family was unlikely to perceive their circumstances as radically different from others in their municipality. The change to a more free market orientation has created a higher standard of living for many Chinese citizens. Average annual discretionary income per capita has increased almost fivefold from 2000 to 2018 (National Bureau of Statistics 2000, 2018). However, these changes have introduced a level of uncertainty not known to previous generations. Prior to reform and opening, an individual or family may not have had much opportunity for increasing their household wealth, yet they had confidence that the government would provide for a basic standard of living. The current economic structure encourages individual initiative, thus creating more "winners" and more "losers" than were present in prior generations. For people who accepted the planned economy of the previous political era, the change to a more individualistic and competitive

society, may feel like a betrayal of the values that they and their forbearers had espoused. Little is known about how such attitudes contribute to people's feelings of depression.

Using a random sample of 1006 low-income households in Shanghai, Pudong, this paper presents a novel analysis in which household characteristics, beliefs about government, and asset ownership are considered as possible correlates of depressive symptoms among low-income individuals in Shanghai.

1.1 Anti-poverty Programs in China

Starting in 1956, the Chinese government set out to address extreme poverty using different programs for different parts of the population (CCCPC Party Literature Research Office 1994). As China moved from a planned economy to a capitalist economy beginning in the 1980s, two main mechanisms for income support emerged. *Wubaohu*, meaning the five guarantees, provided for basic needs including food, clothing, medical care, housing, and burial expenses for orphans and childless elders. *Dibao*, the more commonly received benefit, is used to support a minimum living standard. Families whose incomes are below the local poverty line may apply for *Dibao* in order to raise their income to the designated poverty line or slightly above it. Because *Dibao* is by far the largest anti-poverty program in China, is locally administered, and serves a variety of household types, we focus on *Dibao* recipients in this paper. The variation of household types served by *Dibao* allows us to more fully explore the impact of asset ownership, attitudes towards government, and other demographic characteristics on the well-being measure of depression.

1.2 The Impact of Government Assistance Programs

Mixed findings characterize the extant literature examining the impact of governmental assistance on well-being in China. Although China's poverty rate (using the World Bank's standard of \$1.25 per person per day) was reduced from 60% in 1990 to 11.8% in 2009 (World Bank 2010), there are disparities in these decreases. The poverty rates of the most vulnerable populations of children and elders did not change from 1998 to 2005 (Yu and Zhang 2016). In addition, western China's poverty rate remains very high. Indeed, about two-third (66%; 69.6 million) of the total low-income population of China hail from Western China in 2013 (Yu and Zhang 2016). Moreover, Mao et al. (2013) used national panel data (1993–2011) to examine the relationships between economic growth, income inequality and government anti-poverty interventions, and found the government anti-poverty interventions (e.g., governmental direct financial assistance) did not significantly reduce poverty rates.

Some groups appear to benefit from these programs more than others. Chen and Shen (2014), found governmental subsidies significantly reduced poverty among rural farming households as compared to families engaged in non-agricultural businesses. In Guizhou province anti-poverty policies for women significantly reduced the women's poverty rate (Lai 2017).

Nationally, *Dibao* appears to have been successful in reducing the Chinese poverty rate (Gao 2017). By November 2016, about 4.4% of China's population (about 60.5 million people) were *Dibao* recipients covering 8.6 million urban and 26.3 million rural households (Ministry of Civil Affairs 2016). Yet, *Dibao* seems to do the most good in poorer and less developed provinces as compared to wealthier provinces meaning that *Dibao* recipients in urban settings may not benefit from the program to the same degree (Wu and

Ramesh 2014). In addition, *Dibao's* effectiveness has been constrained by piecemeal delivery (Gao 2017). Moreover, some research suggests that stigma associated with welfare participation could be demoralizing participants' self-perception and well-being (Gao 2017; Li and Walker 2017).

Further complicating the picture is that similar to many public services in China, *Dibao* is a hukou-based policy. If a poor family has a Shanghai urban hukou, they will qualify for a higher *Dibao* payment. Those living in cities who either have a non-Shanghai hukou or have a rural Shanghai hukou designation will not qualify for the *Dibao* amount that has been designated as necessary to achieve a minimum living standard in the urban area.

1.3 Assets and Well-Being

Assets are lifetime financial resources that can be used to generate income, be exchanged for valuable commodities, and passed to the next generation (Sherraden 1991). Assets include commodities that make household labor easier such as washing machines or commodities that contribute to employment prospects such as personal modes of transportation. Substantial research demonstrates that possessing assets positively influences household members. Specifically, economic stability is bolstered by specific types of assets such as home ownership and savings (Ratcliffe et al. 2016; Rothwell and Han 2010). These assets are linked to a strong future orientation (Han et al. 2013), higher self-efficacy (Ssewamala et al. 2009), enhanced child well-being (Williams Shanks et al. 2010), better young adult general health, lower levels of depression (Wu et al. 2018), and reduced adolescent risk-taking (Ssewamala et al. 2010).

Homeownership is a particularly important asset that has been linked to many positive outcomes but not tied definitively to psychological well-being. On the one hand, there is ample evidence supporting a lower level of psychological distress and higher levels of happiness and life satisfaction among homeowners as compared to renters (Cairney and Boyle 2004). Yet, more nuanced findings incorporate the condition of the dwelling and the level financial burden imposed by a mortgage or other financing related to owning a home (Zumbro 2014). Yet, Hu's study in urban China (2013) suggested a positive association between homeownership and overall happiness, even after controlling for housing satisfaction.

In the current study, the participants all have either a rural or urban Shanghai hukou which means they are more likely to have a home that has been passed down through generations or own a home built for factory workers during the Chinese planned economy era, between 1949 and 1990, that can also be passed down to children (Wang and Chai 2009). Even though many workers became poor after the planned economy period ended and are now *Dibao* recipients, housing is more stable in Shanghai than in other countries so that poverty and the lack of ability to own a home do not necessarily go together (Gao 2013; Walder and He 2014; Wang 2004).

Other assets have also been associated with life satisfaction (Han and Hong 2011; Hong and Han 2014). Assets such as appliances, televisions, and cars or scooters are associated with a wife's marital happiness and relationship satisfaction (Han and Kim 2014). Children benefit when their parents have more assets. Significant research demonstrates an association between family assets and child psychological well-being. Assets of various types are hypothesized to create a chain reaction whereby the increased stability that comes with greater family resources promotes good parenting (Axinn et al. 1997; Grinstein-Weiss et al. 2012; Huang 2011; Sobolewski and Amato 2005).

1.4 Depression Prevalence in China

Since the implementation of the reform and opening-up policy, Chinese economy has consistently increased (Wan 2008). However, China's economic rise has also widened the income gap between rich and poor. Such income and wealth inequality, which in turn, raises many social problems including mental health problems such as depression. Nowadays, depression has become a serious epidemiological issue in China. Nearly 54.8 million (About 4.2% of the total population) Chinese people reported depressive disorders in 2015 (World Health Organization [WHO] 2017), which makes China as one of the highest depression rates within the Western Pacific countries (WHO 2017). Previous research has identified several risk factors of depression in China such as female, residence in rural or western/central China, lower education level, and lower income level (Chen et al. 2017; Rao et al. 2019). To reduce the income inequality, Chinese government has developed many poverty alleviation programs and provided multiple welfare benefits for the low-income people, yet the government fails to provide enough services to improve the low-income people's mental health status. For many of these low-income people, especially the welfare recipients, because of the economic burden and stigma of receiving welfare benefits, they have showed a significant higher depression level compare to these from higher income level or non-welfare recipient families (Wu 2017). To our knowledge, few studies shed light on examining the mechanisms of the role of government assistance on the relationship between household SES and depression.

To fill the research gap, this study aims to examine the relationships between individuals and household characteristics, household assets (including home ownership), and beliefs about government as the primary way to improve economic circumstances and self-reported depressive symptoms among low-income people in Shanghai. We hypothesize that certain family characteristics will be associated with depression levels and that people from low-income families may have different levels of depression based on different levels of household assets. We further hypothesize that depression will be higher among individuals that see government as the main actor that could change their economic circumstances. Lastly, the current study investigates the mediation effects of beliefs that government is the best change agent for improved life circumstances on the relationship between household assets and depression among low-income participants from China.

2 Method

2.1 Data and Sampling

The *Qianhu Household Survey* is a cross-sectional survey of low-income households from the *Pudong New Area* (hereafter, Pudong) in Shanghai, China. The data collection was funded by the Civil Affairs Bureau of PuDong. Data was collected between May and June of 2014. A research team including professors from a Shanghai university

and social workers in a local, Pudong-based social work agency implemented this survey. Pudong has 36 sub-districts or townships, and the total resident population was about 5.53 million by the end of November 2017 (Pudong Government 2017¹). Pudong has 36,899 documented low-income households (Zhu 2013) that are supported by eight types of governmental income assistance: urban *Dibao* (also called Minimum Living Standard) households ($n=17,038$), rural *Dibao* households ($n=1541$), urban low-income households ($n=3000$), rural low-income households ($n=6109$), urban serious-disability and unemployed household ($n=6430$), rural serious-disability and unemployed household ($n=2099$), *Wubao* (mostly childless and infirm elders enjoying the five guarantees, including food, clothing, medical care, housing and burial expenses; $n=261$), and other government assisted households ($n=421$). Social Science research does not undergo formal human subjects review in China. However, those implementing the survey asked participants for verbal consent and informed respondents that their participation was voluntary and their choice to participate or not would not affect any services they were receiving in their communities.

Data was collected using a systematic sampling method based on the eight low-income household categories to select primary sampling units. Through the Pudong government administrative roster, one of every 30 persons was selected to participate yielding a beginning sample 1225 people. Included were 567 urban *Dibao* households, 52 rural *Dibao* households, 100 urban low-income households, 204 rural low-income households, 214 urban serious-disability and unemployed household, 70 rural serious-disability and unemployed household, 9 *Wubao*, and 14 and other government assisted households. Data was collected using an in-home questionnaire with the household head of each selected household. On average, each survey took 30 min. Because of moves, some selected participants were unable to complete the survey. Our final analytic sample size was 1006.

2.2 Measures

2.2.1 Dependent Variable

Depression was measured with a five-item scale that was adapted from the China Family Panel Survey (Xie et al. 2012). Although this measure is not a diagnostic measure of major depressive disorder, if used clinically a higher score would certainly indicate the need for further assessment. Therefore, we refer to our dependent variable as depression in this paper. Participants were asked to report their feelings in the last week including the frequency of feeling (a) sad and unable to cheer up, (b) nervous, (c) hopeless about the future, d) that everything seems difficult, and e) that life is meaningless. Participants answered using a five-point Likert scale that ranged from almost every day (=1), half of the week (=3), and never (=5). We reverse coded the responses and summed these five item scores; higher scores indicate a higher level of probable depression. The internal consistency of the depression scale was $\alpha = .93$.

¹ https://www.pudong.gov.cn/shpd/about/20181012/008001001_e32687d9-589d-4285-8411-210c7845a4f0.htm.

2.2.2 Covariates

At the individual level, we considered the household head's characteristics including gender, age, marital status, *hukou* resident status, education level, employment, and self-reported health status. *Gender* was a dichotomous variable (0 = male, 1 = female). *Age* was recoded into five categories by years: ≤ 30 , 31–40, 41–50, 51–60, ≥ 60 , and each category was coded as a dummy variable. *Marital status* was recoded as a dummy variable (1 = married, 0 = others). *Hukou resident status* was defined by a dichotomous variable (1 = rural, 0 = urban). *Education level* was coded to indicate the head of household's highest education level: no education, primary school, middle school, high school, or college and higher level. *Employment status* was a dichotomous variable (1 = unemployed; 0 = others). *Health status* was measured by asking a self-reported question: "How would you rate your health status?" (1 = very bad, 2 = bad, 3 = fair, 4 = good, 5 = very good). We recoded health status as three dummy variables: bad (1 = bad or very bad, 0 = others), fair (1 = yes, 0 = no), and good (1 = good or very good, 0 = others). We also considered other household characteristics including *household size*, and the *number of economic dependents* in the household, both continuous variables.

To understand what factors were associated with depression among participants, we measured *household assets ownership* using a principal component analysis-derived index (Wu et al. 2017) that included assets such as owning a television, refrigerator, oven, microwave oven, air conditioner, washing machine, laptop, desk top computer, modes of transportation, and a house/apartment. This 9-item appliance-asset index was adapted based on the Chinese social context and consumer customs from a 19-item index that had been tested in prior research and shown to be a reliable measure of household assets (Filmer and Scott 2008; Wu et al. 2017).

A principal component analysis was conducted to obtain the factor loadings of each component of the nine items. Then, based on each item's mean, standard deviation, and the factor loadings of the first component, we calculated each participant's household asset ownership index scores using the following equation:

$$ha(x_{ik}) = \sum_k^1 \{ [(x_{ik} - \bar{x}_k) / SD_k] * fl_k \}$$

where $ha(x_{ik})$ denotes the participant i 's total household asset ownership; x_{ik} indicates participant i 's item k 's observation value; \bar{x}_k denotes the item k 's mean value; SD_k means item k 's standard deviation, and fl_k means item k 's factor loading. The higher index scores, the higher level of household asset ownership.

2.2.3 Mediator

Views of change, from a list of five possibilities, we asked participants what types of changed circumstances or change agents would improve their quality of life. Examples on this list included: self, children, non-government organization, and others (please specify), and a question about whether government was the most reliable mechanism for change. After examining simple frequencies, we discovered that about half of participants ($n = 513$; 51%) saw government as the main actor that could improve their life circumstances. With this information we created a dummy variable in which identifying government as the main

means for positive life changes was coded as 1 and those that saw other means as primary were coded as zero.

2.3 Analysis

To account for missing data we conducted multiple imputation generating 20 imputed datasets upon which all analyses were based. Then, using a hierarchical approach, we created a basic model (Model 1) that included the individual and household demographic variables alone. Next, we added the government as the agent for improved life circumstances variable to Model 2. Finally, we added the household assets index variable to Model 3. We conducted OLS regression for the depression outcome. The mean variance inflation factor (VIF) value was 2.16 indicating the absence of multicollinearity. Lastly, we examined whether individual beliefs about government as the agent for improved life circumstances mediated the relationship between household assets and depression. We used a Hayes' bootstrapping method using the recommended 10,000 resample level (Hayes 2013). All analyses were conducted using Stata 13.1 for Windows.

3 Results

3.1 Sample Description

Less than half of the participants (43%) were female, over 30 years of age (93%) with 20% between 30 and 40 years, 26% between 40 and 50 years, 26% between 50 and 60 years, and 20% were older than 60 years. Half of the participants were married, and 29% of the participants held rural Hukou. About 17% participants described themselves as illiterate, whereas 21% of participants had completed primary school; 41% completed middle-school; 17% had finished high school. Only 4% had a college degree or higher. More than two-thirds (70%) of participants were unemployed. Half of the participants described themselves as having poor health. On average, the participants' household size was three persons. The average number of economic dependents living with the respondents was about 2 (mean = 1.59, SD = 1.00), and more than half (51%) of the participants believed that government assistance was the main tool that could help improve their economic circumstances. Others cited education or their own initiative as possible economic drivers. The household assets index values ranged from -3.48 to 4.79. The mean depression score was 12.97 (SD = 6.22). The descriptive results were consistent between the imputed and raw data (See Table 1 for more details).

3.2 Hierarchical Regression Results on Depression

Table 2 summarizes the results of a series of hierarchical regression models for the dependent depression variable. Model 1 shows the basic model results including all demographic variables. As shown in Model 1, for every one-person increase in the number of economic dependents in the household, the depression score decreased .97 units ($p < .001$). However, married heads of households ($b = -0.86$, $p < .05$), with fair ($b = -3.06$, $p < .001$) or good ($b = -5.55$, $p < .001$) self-reported health showed significantly lower depression levels compared to their counterparts unmarried counterparts and those with poorer self-reported

Table 1 Sample description

Variable	Raw data					Imputed data (<i>n</i> = 1006)	
	<i>n</i>	Mean	SD	Min	Max	Mean	SE
<i>Dependent variable</i>							
Depression	1006	12.97	6.22	0	25	12.97	0.20
<i>Independent variables</i>							
Female	997	0.43	0.50	0	1	0.43	0.02
<i>Age</i>							
< 30 years	1006	0.07	0.26	0	1	0.07	0.01
30–40 years	1006	0.20	0.40	0	1	0.20	0.01
40–50 years	1006	0.26	0.44	0	1	0.26	0.01
50–60 years	1006	0.26	0.44	0	1	0.27	0.01
> 60 years	1006	0.21	0.41	0	1	0.20	0.01
Married	1000	0.50	0.50	0	1	0.50	0.02
Rural hukou	952	0.29	0.46	0	1	0.29	0.01
<i>Education level</i>							
Illiteracy	1006	0.17	0.37	0	1	0.17	0.01
Primary school	1006	0.21	0.41	0	1	0.21	0.01
Middle school	1006	0.40	0.49	0	1	0.41	0.02
High school	1006	0.17	0.38	0	1	0.17	0.01
College and higher	1006	0.04	0.20	0	1	0.04	0.01
Unemployed	905	0.70	0.46	0	1	0.69	0.02
<i>Health status</i>							
Bad	1006	0.49	0.50	0	1	0.50	0.02
Fair	1006	0.39	0.49	0	1	0.39	0.02
Good	1006	0.11	0.31	0	1	0.11	0.01
Household size	982	3.17	1.48	1	8	3.15	0.05
Economic dependents—total	942	1.59	1.00	0	4	1.57	0.03
Government and better life circumstances	1006	0.51	0.50	0	1	0.51	0.02
Assets index	1006	−0.16	1.62	−3.48	4.79	−0.16	0.05

health. When government as change agent was added in Model 2, those who indicated that government was the main means for attaining a better life had significantly higher depression levels than participants that did not hold this view ($b = 1.40, p < .001$). Model 3 demonstrated that higher numbers of household assets were associated with lower depression levels ($b = -0.28, p < .05$). Government as the main means for attaining a better life remained a significant predictor of higher depression levels in Model 3 ($b = 1.32, p < .001$).

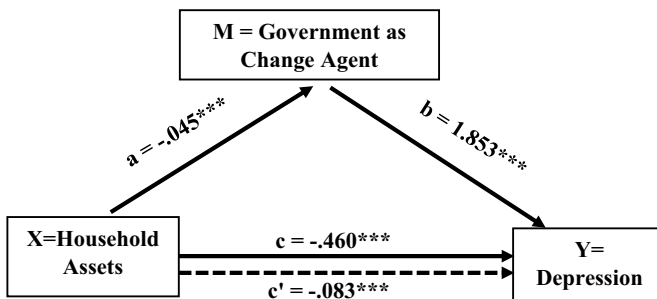
3.3 Mediation Effects of Government Assistance

To further understand how attitudes toward government might affect depression, we tested a model in which the strong relationship between household assets and the outcome measure was mediated by the belief that government was the main driver or a route to a better life. We found a partial mediation effect (See Fig. 1). The regression coefficient between

Table 2 Regression results on depression

DV: depression	Model 1			Model 2			Model 3		
	Coef.	SE	p	Coef.	SE	p	Coef.	SE	p
Female	0.35	0.38		0.27	0.38		0.32	0.38	
<i>Age (ref= < 30 years)</i>									
30–40 years	0.35	0.80		0.38	0.80		0.18	0.80	
40–50 years	0.96	0.79		0.93	0.79		0.67	0.79	
50–60 years	0.81	0.80		0.76	0.79		0.52	0.80	
> 60 years	-0.64	0.89		-0.75	0.89		-1.07	0.90	
Married	-0.86	0.43	*	-0.84	0.43	+	-0.73	0.43	+
Rural Hukou	-0.29	0.49		-0.37	0.49		-0.49	0.49	
<i>Education level (ref= illiteracy)</i>									
Primary school	-0.24	0.62		-0.17	0.61		-0.10	0.61	
Middle school	0.54	0.60		0.58	0.59		0.71	0.59	
High school	-0.54	0.70		-0.52	0.70		-0.24	0.71	
College and higher	-0.24	1.04		-0.17	1.03		0.30	1.05	
Unemployed	0.72	0.49		0.53	0.49		0.45	0.49	
<i>Health status (ref= bad)</i>									
Fair	-3.06	0.40	***	-2.94	0.40	***	-2.91	0.40	***
Good	-5.55	0.63	***	-5.20	0.64	***	-5.09	0.64	***
Household size	-0.09	0.16		-0.08	0.16		-0.02	0.16	
Economic dependent people	0.97	0.24	***	1.00	0.24	***	0.96	0.24	***
Government and better life circumstances				1.40	0.37	***	1.32	0.37	***
Assets index							-0.28	0.13	*
Constant	12.93	1.10	***	12.24	1.10	***	12.20	1.10	***
R ²	0.157			0.169			0.173		
Adjusted R ²	0.143			0.155			0.158		

* < .05; ** < .01; *** < .001



Notes: The dotted line denotes the effect of household assets (X) on happiness/ depression (Y) when relying on government assistance (M) is not included as a mediator. Paths a, b, c, and c' are unstandardized OLS regression coefficients. All the independent variables in Table 1 are included as covariates. ***p < .001, **p < .01, *p < 0.05 (two-tailed tests)

Fig. 1 Conceptual model for mediation analyses

household assets and government as change agent was statistically significant (path $a = -0.045$, $p < .001$), as was the regression coefficient between government as change agent and depression (path $b = 1.853$, $p < .001$). The indirect effect was -0.083 ($a*b$; $p < .001$). Given that the direct effect of household assets on depression was also significant (path $c' = .012$, $p < .001$), viewing government as the most important change agent only partially mediated the relationship between household assets and depression (mediation effects = 18.04%, $p < .001$) meaning that a comfortable living standard may blunt the direct impact of attitudes toward government on depression.

4 Discussion

The current study findings provide insight into how low income Shanghainese residents view their lives in a rapidly changing economic context. Consistent with findings around the world, marriage and positive health status are associated with lower depression scores. Likewise, taking care of other family members, particularly in low income circumstances, is also associated with higher self-reported depression. Surprisingly, Hukou status was not a significant predictor as other literature suggested. The possible reason was that our study sample was all Shanghai residents, and the resources possessed by urban and rural low income families in Shanghai were almost equal; while other studies showing the negative effects of Hukou were based on participants experiencing in-country migration who had to bear tremendous inconvenience because of their rural hukou status.

As hypothesized, we found the positive association between the belief that government is the primary agent for achieving a better life and the depressive symptoms. This finding should be understood in the board context of social and economic transformation of China during the past four decades. In China, the role of government looms large in both the practical and, our findings suggest, the psychological area. Yet government's role as a safety net has changed dramatically and for those who see government as the main route to improved life circumstances, their mental health maybe compromised. The current economic system that rewards individual initiative may be at odds with the long held, perhaps inter-generationally transmitted expectations about government's role in bettering individuals' economic prospects. In our sample, this belief was held by over half of our participants and, indeed, this belief remained a significant predictor for depressive symptoms. As most Chinese people have been benefiting from the economic blooming and enjoying diverse cultural recreation due to China's reform and opening policy, it is meaningful to pay attention to people who have not grasped those economic opportunities and provide interventions to help them cope with mental health issues caused by the gap between their beliefs and the reality.

Consistent with the previous literature, higher household assets were associated with lower depression outcomes, while our research findings furthered this conclusion by identifying that low income people's tendency to over rely on government assistance as an mediator to connect the link between household asset and mental health status. Households with lower family assets would show more reliance on government to better their lives, while this tendency exacerbated their mental health conditions, due to the change of governmental roles in the current China. This finding suggested that the current anti-poverty programs in China should take the mental health issues of welfare recipients into consideration. National and local government can work on increasing the asset-building for low income

families; meanwhile, the efforts to change the beliefs of welfare recipients, particularly the overreliance on government assistance, are both necessary and meaningful.

Limitations to our work include the use of a probability sample that comes from one district of Shanghai meaning that we cannot generalize to all low income families in Shanghai or to other poor families in China. Indeed, Shanghai is one of if not the most economically developed city in China. As such the local government is able to provide more in the way of anti-poverty programs than other Chinese municipalities. Further, as referenced earlier in the paper, these programs are all based on Hukou status, meaning that findings from our study are only applicable to those with a rural or urban Shanghai Hukou status. Last, the cross-sectional nature of the data also does not allow us to make causal inferences. Future research would benefit from longitudinal designs allowing for control of time varying factors.

Despite these limitations, this study has several strengths. First, the use of multiple imputation to address missing data yielded a larger analytic sample. Second, we considered multiple models to understand important factors related to depression and to examine the complex interplay of life circumstances, attitudes, and assets. Though previous research on depression among Chinese people identified important individual and family level risk and protective factors, not too many studies focusing on how people's perceptions of government can play a role in determining mental health outcomes. Meanwhile, our study simultaneously modelled the effects of family status, economic status and belief system, as well as demonstrated the unique pathway from household assets to individuals' depression, which largely contributed to the research on depression among low income people in a rapid changing Chinese society.

5 Implications/Conclusion

Rapid economic development brings both positive and negative changes to all members of society. Yet for those who are poor, these changes likely have a greater impact. Outward signs of rising wealth, such as household assets, tell part of the story of a changing society, but perhaps not all. The need for health and companionship, the level of care-giving burden, and beliefs about how life improves or get worse likely interact in complex ways to shape how individuals adapt in a changing world. Scholars often study issues in isolation meaning that family circumstances are not considered in conjunction with economics or belief systems. Our work suggests that bringing these elements together, both empirically and theoretically, will allow for richer understanding of lower income family's realities and promote improved policies and practices for these populations.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

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