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Financial Literacy Research in China: The Progress and the Role of Social Work

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Growing income disparity, expanding financial markets, and diversifying financial products have pushed economically vulnerable groups in China into greater disadvantage in recent decades, resulting in a call for financial literacy. Compared with the research in developed countries, the study of financial literacy is relatively new in China. Based on a literature review of studies on financial literacy in China, this paper presents the current progress and the gaps in both theory and methods. To address the gaps, social work can and should contribute to this area.

Keywords: financial literacy, literature review, China, social work

Introduction

In recent decades, China has undergone a social and economic transformation of historic proportions, but this transformation has been accompanied by dramatic growth in income disparity. From 1995 through 2012, the nation's Gini coefficient rose from 0.45 to 0.73 (Xie & Zhou, 2014) and reforms reduced social welfare provisions, which are now highly connected with *Hukou* (a household registration record) and employment status (Deng, Sherraden, Huang & Jin, 2013). These changes have increased institutionalized discrimination against socioeconomically vulnerable groups. Urban residents and employees in the large state-owned sector are often eligible for various welfare schemes while rural residents receive only a fraction of the benefits (Deng et al., 2013).

The recent expansion of Chinese financial markets has coincided with inter-temporal and inter-sectoral resource mobilization. A diverse complement of financial products and services has become increasingly accessible to small investors, adding complexity to financial decision making. These developments have exacerbated economic vulnerability by increasing the difficulty of acquiring, maintaining, and growing wealth. The China Household Income Disparity Report (Survey and Research Center for China Household Finance [SRCCHF], 2013) revealed that income from investment is a main contributor to income disparity, while income from wages and salaries actually narrow that disparity. The report also showed that households with incomes in the top 10% receive 67.21% of their incomes from investments.

Studies have found that financial knowledge is consistently associated with good financial behaviors in a few countries (e.g., Christelis, Jappelli, & Padula, 2010; Hastings & Tejada-Ashton, 2008; Van Rooij, Lusardi & Alessie, 2011), which can lead to better wellbeing of individuals and families (Braunstein & Welch, 2002). However, financial illiteracy is reported as prevalent among vulnerable populations globally, for example, the elderly, people with low education attainment and the unemployed (Lusardi & Mitchell, 2011), and this exacerbates their difficulty in making ends meet. All of these have prompted a call to research financial literacy and involve social work. To answer this call, this paper aims to synthesize the current financial literacy

research in China and discuss the role of social work in future research and practice. Taking contexts into consideration, the paper first introduces the background on financial literacy research in other countries and the financial literacy environment in China, and then reviews the financial literacy research in China and discusses the role of social work.

Financial Literacy Research in Other Countries

With the booming of financial markets in the U.S. in the 1990s and the increasing burden of welfare planning, such as retirement, on individuals, the negative effects of financial illiteracy emerged. For example, Bernheim and Garrett (1996, p. 3) found that “many individuals poorly understood their economic vulnerabilities, as well as the economic incentives that some tax provisions create.” They proposed the concept of financial literacy and measured it by assessing the respondents’ understanding of a series of related factual and conceptual items, e.g., “inflation, taxation...interest...the minimum wage, the federal deficit, federal debt per household, and Dow Jones average,” and “of real vs. nominal investment returns and risk-return tradeoffs” (Bernheim & Garrett, 1996, pp. 7, 9). This measure implies that financial literacy consists of knowledge of a set of financial concepts.

Since Bernheim and Garrett (1996), a number of studies have investigated this subject, mainly in the U.S. and other developed countries. Studies consistently reported that people do not have a desirable level of financial literacy (e.g., Fornero & Monticone, 2011; Lusardi & Mitchell, 2011; Sekita, 2011), while part of the research discussed interventions to promote financial literacy (e.g., Fernandes, Lynch Jr. & Netemeyer, 2014; Haynes-Bordas, Kiss, & Yilmazer, 2008). A significant body of research (e.g., Hung, Parker, & Yoong, 2009; Huston, 2010; Lusardi & Mitchell, 2014; Office of Economic Cooperation and Development [OECD], 2015) focuses on conceptualization and measurement, which serve as the foundation of describing and intervening in financial literacy. Definitional consensus has not been reached yet, but measures of financial literacy are somewhat consistent. In one influential study, Lusardi and Mitchell (2014) defined financial literacy as “peoples’ ability to process economic information and make informed decisions about financial planning,

wealth accumulation, debt, and pensions" (p. 6), but their corresponding measure only looks at financial knowledge. They identified three fundamental dimensions of financial literacy: "(i) numeracy and capacity to do calculations related to interest rates, such as compound interest; (ii) understanding of inflation; and (iii) understanding of risk diversification" (p. 10), and developed a set of three questions measuring the three dimensions respectively. These questions have been widely adopted, and sometimes expanded upon (e.g., Hung et al., 2009), both in the U.S. and other countries (Lusardi & Mitchell, 2014).

To analyze differences in the definition and measurement of financial literacy, Huston (2010) adopted a logical analysis approach and reviewed 71 studies published from 1996 to 2008. She came to define financial literacy as "a component of human capital that can be used in financial activities to increase expected lifetime utility from consumption (i.e., behaviors that enhance financial well-being)" (p. 307). In her conceptualization, financial literacy encompasses the four distinct content areas found in previous articles: money basics, borrowing, investing, and protecting resources.

The International Network on Financial Education (INFE) of the Organization for Economic Cooperation and Development (OECD) initiated a cross-country comparison on financial literacy. It defines financial literacy as "a combination of awareness, knowledge, skill, attitude, and behavior necessary to make sound financial decisions and ultimately achieve individual financial wellbeing" (OECD, 2015, p. 5). The measure, building on Lusardi and Mitchell (2014), covers all aspects of this comprehensive definition, examining day-to-day money management, financial planning, choosing appropriate products, and financial knowledge and understanding (OECD, 2015).

Beyond financial literacy, scholars proposed a framework of financial capability encompassing both financial literacy and financial access. Huang, Nam, and Lee (2015) contributed further to the framework by differentiating financial functioning from the matrix of financial literacy and financial access. In their work:

Financial literacy is the understanding of financial concepts on multiple financial domains, such as personal finance (e.g., interest, investment risk), borrowing, saving, and protection (Huston, 2010). *Financial access* is viewed as the availability

of...financial products and services (Sherraden, 2013; Huang et al., 2013). *Financial functioning* is defined by behaviors related to finances, such as budgeting, saving and investing. (Huang, Nam, & Lee, 2015, p. 240)

In accordance with this definition, their measure includes items on daily management; investment, lending, and credit; and policy and services.

In sum, with low financial literacy consistently reported in the literature, studying financial literacy has intensified in many countries, especially the U.S. Great effort has been expended on developing solid definitions and valid measures of financial literacy. Although a consensus has not been reached, conceptualizing and operationalizing financial literacy has progressed significantly.

The Financial Environment in China

The Formal Financial Sector

One feature of China's financial environment is the considerable difference in access to banking services in rural and urban areas. According to the People's Bank of China (PBC) (2017a), nationally, 6.125 billion bankcards had been issued at the time of their report, equivalent to 4.47 cards per capita, much higher than the average, 2.8 cards per capita, for rural residents. In 2016, there were 0.34 million ATMs and 6.77 million point of sale systems in rural China, counting for 37% and 28% of the national total, respectively (PBC, 2017b), in contrast to the rural population of about 910 million in 2016, about two thirds of the total Chinese population. Rural Chinese were less likely to be approved for loans from banks than their urban counterparts (Chen & Jin, 2017). Clearly, rural residents lack the access to banking services that their urban counterparts enjoy.

Another defining feature of the financial environment is the rapid growth of the stock market in China, which may be accompanied by high risk. The two domestic stock exchanges, the Shanghai Stock Exchange and the Shenzhen Stock Exchange, ranked top 10 worldwide by December 2016 (Stockstotrade, 2016). Participation in the stock market is also increasing, which is indicated by the proportion of people holding stocks which increased

from 8.82% in 2010 to 10.12% in 2014 and the proportion of those holding funds increased from 0.04% in 2010 to 3.52% in 2014 (Wei & Song, 2016). The stock market turnover ratio¹ for China in 2015 was 557.04% (World Bank, 2017a), compared to the U.S. ratio of 160.16% (World Bank, 2017b). This is noteworthy, given that the government owns a portion of the shares of Chinese firms, and those shares remain non-tradable (Elliott & Yan, 2013). This implies that holding stocks for short-term return may be a primary method of investment, which could result in a highly volatile market and growing risk for investors.

Meanwhile, the Chinese commercial insurance industry remains relatively underdeveloped, and may not be able to effectively counterbalance the risk in the financial market. The insurance industry's annual assets reached almost CNY 12.4 trillion, accounting for around 18% of China's gross domestic product in 2015 (National Bureau of Statistics of China, 2016; percentage calculated by authors). In contrast, the annual assets of the insurance industry were valued at around \$8.4 trillion (Federal Insurance Office, 2016), accounting for almost 46.9% of the nation's 2015 gross domestic product (authors' calculations based on Trading Economics, 2017) in the United States in 2015. Commercial insurance generally is not viewed as a financial source after retirement in China. According to a national representative sample, 52% of the respondents did not trust or hold a neutral opinion towards commercial insurance, and the proportions of the sample holding commercial pension insurance or commercial medical insurance were 2.6 and 6.9%, respectively (Wu, Yang, & Yin, 2017).

The Informal Financial Sector

China has a large and diverse informal financial sector, i.e., financial activities that are not regulated by any government entity (Elliot & Yan, 2013; Gao, Xin, & Zhu, 2014). This sector includes pawnshops, credit guarantee companies, microfinance companies, and firms that provide underground intermediation. Beck and De la Torre (2007) asserted that loans from informal lenders could cost more than those from formal institutions and expose the borrowers to greater financial risk. Research outside China also has shown that the cost and risk fall disproportionately upon those who are already financially

vulnerable: the poor, individuals with low levels of education, and female-headed households in rural areas (Campero & Kaiser, 2013; Deku, Kara, & Molyneux, 2016), which is also the same in China (e.g., Gao et al., 2014; Zuo & Ma, 2005).

Internet Finance

This sector is not exclusive to either formal or informal financial sectors, but needs to be separately discussed here, as its rapid growth features uniquely in the Chinese financial environment. Although the size is relatively small compared to bank loans and bank payments, the impact of internet finance cannot be overlooked, due to the large number of users and the associated risk. For example, the two biggest third-party payment platforms, Alipay and WeChat Pay, had 520 million accounts and 600 million accounts respectively in 2017 (Aveni & Roest, 2017). The total volume of third-party payment had doubled, from CNY 5.37 trillion to 11.90 trillion (Xu, 2017). From 2013 to 2015, the number of person-to-person (PtP) internet loan platforms tripled, from 814 to 2,595 and the total volume of PtP internet loan increased eight times, from CNY 97.6 billion to 830.2 billion (Xu, 2017). Guo (2016) stated that one third of the PtP platforms experienced problems that put their users at risk in 2015.

Summary

The complicated financial market, in the background of a revised social welfare system and prominent rural-urban disparity (see Choi, 2015; Deng et al., 2013; Selden & You, 1997) in China, requires people equipped with financial literacy, a need the Chinese government's recent policy agenda has acknowledged. The State Council of China's (2015) "Plan for Promoting the Development of Financial Inclusion (2016–2020)" includes a goal of improving financial literacy via building a long-term mechanism for financial education.

The Literature on Financial Literacy in China

Methods of Searching

Inclusive and exhaustive searches for both Chinese and English-language literature were performed in English bibliographic databases (ProQuest, SociINDEX with Full Text, and APA PsycNET), and one Chinese bibliographic database (China National Knowledge Infrastructure). The searches were updated on January 30, 2018. Through English database searches, peer-reviewed studies that were conducted in mainland China with a focus on the Chinese population, and that included any or all of three key terms: financial literacy, financial knowledge, and/or financial capability were identified. Through this process, we identified 296 non-duplicate English-language citations, to which we applied four major inclusion criteria: (1) “financial knowledge,” “financial literacy,” or “financial capability” as main observed variable; (2) empirical study; (3) conducted in mainland China in Chinese population; (4) included measures for “financial knowledge,” “financial literacy,” or “financial capability.” The process, illustrated in Figure 1 (See the Appendix), yielded two English-language articles for inclusion in the review. Another article was found and included through citation tracking. These three studies are marked with “*” in the references.

Through Chinese database search, articles were collected by two major search limits: (1) Article title, theme, key words, or abstract include one term from a key term series developed from semantic translations of “financial knowledge,” “financial literacy,” and “financial capability.” The domains of “financial” were captured by six Chinese synonyms: *cai jing* [finance and economics], *jin rong* [finance], *cai wu* [financial affairs], *jing ji* [economy], *li cai* [money management], and *cai shang* [financial quotient]; The domains of “literacy” were captured by five Chinese synonyms: *su yang* [literacy], *su zhi* [competency], *zhi su* [quality], *neng li* [capability], and *zhi shi* [knowledge]. Thus, six Chinese terms of “financial” and five terms of “literacy” or “knowledge” or “capability” were combined to create 30 pairs of key terms, such as *cai jing su yang* [finance and economics literacy], *cai jing su zhi* [finance and economics competency], *cai jing zhi su* [finance and economics quality], *cai jing neng li* [finance and economics capability], *cai jing zhi shi* [finance and economics

knowledge], *jin rong su yang* [finance literacy], *jin rong su zhi* [finance competency], and so on. In addition, *cai shang* [financial quotient] was solely used as an additional search key term, since its Chinese meaning indicates a person's financial quotient. (2) The article had to be published in journals that were included in the Chinese Social Science Citation Index (2017–2018) or Chinese Social Science Citation Index Extended (2017–2018) (Institute for Social Sciences Research and Assessment at Nanjing University, 2017), considered databases of high-quality journals in Chinese and frequently used in literature reviews (e.g., He & Liu, 2017; Wan & Zhang, 2016; Wang & Zhou, 2016). Two major inclusion criteria were applied to 1,044 non-duplicate articles: (1) Include any one of the 31 key terms as main observed concepts discussed; or (2) include a definition or measures of any one of the 31 key terms. One additional article was identified through citation tracking, resulting in a total of 47 articles. This process is illustrated in Figure 2 (see the Appendix). These studies are marked with “*” in the references.

The Level of Financial Literacy

The 38 empirical studies out of the 50 articles in our review provide a description of the financial literacy level in China. For example, the 2013 wave of China Household Financial Study (CHFS), a national representative dataset, adopted the three questions on calculation of interest, inflation, and investment risk diversification from Lusardi & Michell (2014). The participants answered on average 0.6 questions correctly. Only 1.65% of them answered all three questions correctly, and 73.6% did not know the answer to at least one of the three (Yin, Song, & Wu, 2014). Breaking down the overall score by the questions, 14.90% of the CHFS participants correctly calculated the interest, 15.64% understood inflation, and 29.57% knew that diversifying investment can reduce risk (Yin et al., 2014).

The 2014 wave of the Chinese Survey of Consumer Finance representatively sampled urban residents in China and included similar questions on the three aspects (Chu, Wang, Xiao, & Zhang, 2017). The study found over half were able to calculate compounding interest, nearly 60% understood inflation, and about 35% knew that investing in one stock was riskier than investing in equity stock (Chu et al, 2017). Based on a sample

of 358 urban residents in Shanghai, one of the most developed cities, Chen, Wang, Yang, and Yuan (2014) reported that 45% of the subjects calculated compounding interest correctly, 73% understood inflation, and 59% got the relation of diversifying investment to reduce risk. Zhu, Lin, and Zhang (2017) tested 1,130 urban residents on the same aspects. The accuracy rates were 69.6%, 76.1% and 45.3% respectively, and 27% of the sample answered all the three questions correctly (Zhu et al., 2017). Based on 1,126 stock investors randomly sampled in the capital cities of four provinces in China, Du, Li and Yan (2016) found that 50.18% of the sample understood compound interest and 65.08% understood inflation.

Adopting the three questions enables a comparison between China and other countries. According to the data provided in Table 1 in Zhu, et al. (2017), the accuracy rates of urban China reported by Chu et al. (2017), Chen et al. (2014) and Zhu et al. (2017) are close to the rates of the U.S., Japan, and Italy, which rank middle in the table and lower than those of Germany and Switzerland in the top rank. However, the national statistics based on the 2013 wave of CHFS (Yin et al., 2014) are similar to those of Romania and Russia, which are in the bottom rank in Table 1 in Zhu et al. (2017). The comparison reflects the relative level of Chinese financial literacy as well as the disparity between the financial literacy of urban and rural residents.

Other demographic characteristics have been studied in the literature on financial literacy in China. One of these is regional disparity, but the findings are not consistent (e.g., Sun, Li, & Li, 2017; Zhang & Xiong, 2017). Liu (2018) concluded that regional disparity is not significant. Wealth, age, education, profession, and gender, conversely, have been found significantly associated with financial literacy, which is generally consistent with the findings in other countries (e.g., Lusardi & Mitchell, 2014; Xu & Zia, 2012). For example, Zhang and Xiong (2017) documented that in rural areas, females, people with low education attainment, those with agricultural employment, and those who had not received financial education have lower financial literacy than their counterparts. Chen et al. (2014) found the same gender gap and education gap in urban China. The profession gap is supported by Zhang, Wang, and Yu (2016) and Zhang, Lu, and Zhang (2017) (who used the same data source), and Du et al. (2017), all of whom sampled stock investors and found they

better answered the three questions. Based on a nationally representative sample, Liu (2018) found age is curvally associated with financial literacy. In contrast with Zhang and Xiong (2017), females in this study are more financially literate than males, showing that some degree of inconsistency exists in gender comparisons.

The Impact of Financial Literacy

While documenting the level of financial literacy, most of the empirical studies used financial literacy to predict different financial behaviors. For example, Yin, Song, Wu, and Peng (2015) and Ma and Zhao (2015) found high financial knowledge is correlated with the decision and motivation to start an enterprise. People with high financial knowledge also are more likely to buy commercial insurance (Qin, Wang, & He, 2016; Wu, Yang, & Yin, 2017), have a long-term financial plan (Hu & Zang, 2017), and have a better retirement plan (Wu et al. 2017). Additionally, financial knowledge is positively associated with accessing loans at banks (Ma & Zhao, 2015; Su, He, & Kong, 2017; Sui & Ma, 2011; Wu, Wu, & Wang, 2018; Yin et al. 2014; Zhang & Yin, 2016), and paying back loans (Sun et al., 2017). Moreover, people with high financial knowledge are less likely to overextend themselves through loans (Wu, Wu, & Wang, 2018).

Financial knowledge is also positively correlated with family income and wealth (Liu, 2018; Luo & Wang, 2018; Wang, Deng, & Liao, 2016; Wu, Wu, & Zhang, 2018; Yin & Zhang, 2017; Zhang et al., 2016), though the strength of impact decreases with the increase of financial knowledge (Yin & Zhang, 2017). Luo and Wang (2018) further found that the difference between objective and perceived financial knowledge is curvally associated with wealth. The association is positive when perceived financial knowledge is less than objective financial knowledge, i.e., financial under-confidence, and the association is negative when perceived financial knowledge is higher than objective financial knowledge, i.e., financial over-confidence (Luo & Wang, 2018).

The Gaps in the Research

Studying financial literacy has been booming in China recently. Eleven of the 50 articles were published from 2014 to

2015, and 34 have been published since 2016, the total of which counts for 90% of the identified articles. Four of the five printed before 2014 only basically introduced the concept of financial literacy or financial knowledge in the background of discussing financial education for students. Although the number and depth of articles on this topic have increased, the methodological quality of the articles leaves a few gaps to be addressed in future research.

First, the generalizability of the findings to the Chinese population, especially the vulnerable populations, is questionable. Although among the empirical articles, 22 used national representative data, the studies are based on only two datasets. One is the Chin FS, a national representative dataset. Twelve analyzed the 2013 wave of CHFS, one is based on the 2015 wave, and one used all three waves of CHFS, i.e., 2011, 2013, and 2015. The other is the Chinese Survey of Consumer Finance (CSCF), representatively sampling urban China. Only five empirical studies target rural residents, who are vulnerable in the financial market, but none used a probability sampling strategy to promote representativeness. Other vulnerable populations (for example, people with low income, people with disabilities, the older-aged, and women) have not been given much attention.

Second, theories and measures of financial literacy originated in developed contexts where the financial environment is different from the aforementioned Chinese environment. Thus, whether these theories and measures are applicable in Chinese contexts is questionable. For example, Lusardi & Mitchell's (2014) three questions, which the CHFS dataset and a few other studies adopted, are based on the common practice in the U.S. of individual investment in the financial market, such as stocks and funds, for retirement planning. However, as the main part of the Chinese pension system is managed by the government, individuals do not decide on the investment of the pension. Therefore, it is uncertain that answering these questions correctly will lead to a better retirement in the Chinese context.

Moreover, not investing in high-risk financial products (for instance, stocks) is considered an investment mistake signaling financial illiteracy (Campbell, 2006). However, if high financial literacy leads to high financial wellbeing, not investing in stocks may actually suggest financial literacy, given the current situation of the Chinese stock market. Studies in China also found

that overconfidence in one's financial literacy, but not actual financial literacy, is associated with holding stocks in China (Hu & Zang, 2016; Xia, Wang, & Li, 2014; Yin et al., 2014).

Further, compared with studies in many western countries, Chinese residents are more likely to respond "don't know" to questions on financial literacy. For example, Yin et al. (2014) documented at least 42.37% of Chinese participants in the 2013 wave of CHFS selected "don't know," at about 30% more than the rates of "don't know" in the U.S. and the Netherlands. The prevalence of "don't know" adds the challenge of measuring financial literacy in China, as "don't know" may not mean actual lack of knowledge, but lack of confidence.

Several new measures have been designed (e.g., Liang & Qiao, 2014; Liu, 2018; Meng, 2014; Su et al., 2017; Yu, Wu, & Hua, 2017; Zhang & Xiong, 2017), but few were specific for the vulnerable populations. As the financial environment within China is different for different populations, using a "universal" measure may lead to low validity. One exception is Zhang and Xiong (2017). Referring to the definition of financial literacy in the Program for International Student Assessment, their study developed a set of questions measuring financial literacy of rural Chinese. In addition to calculating interest, understanding inflation and diversifying investment, the measure also covers understanding credit, knowing the financial products of banks, comparing and selecting different types of loans, financial planning, selecting fixed loan rates or floating rates when interest increases are expected, and understanding who would be responsible for the possible loss of financial products at banks. Moreover, discussing the validity and reliability of these new measures is rare, with Liu (2018), and Zhang and Xiong (2017) as two exceptions. This issue can be partly attributed to a lack of discussing the fitness of theories to the Chinese context. Recently, Guo, Zhang, Feng, and Guo (2017), and Liu, Tian and Li (2017) summarized and commented on the development of financial literacy theories and measures in other countries, especially in the U.S., which can set the ground for addressing these two issues. More discussions are hopefully coming.

Third, few studies look into the causality among financial literacy, financial behaviors, and financial outcomes. None of the articles adopted a random control trial or quasi-experimental design to tackle causality, though a few used propensity score

(e.g., Du et al., 2017) or instrument variables (e.g., Wu, Guo, & Xie, 2017; Yin et al., 2015) to complement their studies. Research on preventing or intervening in financial illiteracy of vulnerable populations is deficient as well in the literature.

The Role of Social Work

Social work has been working on improving the financial wellbeing of vulnerable populations via promoting financial literacy since the beginning of the profession (Stuart, 2013, 2015). It has re-emerged recently and grown as an important area, particularly in the background of the recent economic recession in the U.S. (Sherraden, Frey, & Birkenmaier, 2016). For example, financial social work, as a specialty of clinical social work, was established by Reeta Wolfsohn in the U.S. in 2003 (Silverman, 2018). Financial social work practice can include financial education, financial coaching, financial counseling, and financial therapy at individual, family and even community/organization levels, as suggested by Sherraden et al., (2016). In 2008, the School of Social Work at the University of Maryland Baltimore in the U.S. created the Financial Social Work Initiative to promote the education, research and practice for the university (Frey, Sherraden, Birkenmaier, & Callahan, 2017). Brown School at Washington University in St. Louis in the U.S. had developed and tested a curriculum on financial capability for four years until 2012 (Frey et al., 2017). Social work scholars in the U.S. have also actively engaged in academic dialogue on financial literacy (e.g., Huang, Nam, Sherraden, & Clancy, 2015; Sherraden, 2013). "Building financial capability for all" is raised as one of the 12 grand challenges, which are suggested as the directions of social work profession in the 21st century by the American Academy of Social Work and Social Welfare (Padilla & Fong, 2016).

The aforementioned empirical studies report that financial literacy is positively correlated with sound financial decisions and economic wellbeing in China. The level of financial literacy of the Chinese is generally at the level of Americans, while low financial literacy is more prevalent among vulnerable populations (e.g., rural residents, people with low education attainment, etc.), than others. Aggravating the problem of financial illiteracy is the booming and relatively risky Chinese financial

market. In sum, the challenge in China is very similar to the one in the U.S. Social work in China, therefore, should take actions in both practice and research, as has been done by social workers in the U.S.

In the domain of practice, social workers have skills and ethics regarding their work with vulnerable populations. The profession of social work in China is rapidly developing. For instance, by the end of 2017, there were about 320,000 licensed social workers and 310,000 social work job positions in China, 10% more than the numbers in 2016 (Ministry of Civil Affairs, P.R. China, 2018). Meanwhile, we should note that social workers in China may not be well-equipped to help service recipients in financial areas. Two universities in China, Central University of Finance and Economics (CUFE) and Guangdong University of Finance and Economics, take advantage of their strength in finance education and are pioneering financial social work as the focus of their respective social work degree programs in 2018 (CUFE, 2018; Huang, 2018). Such a strategy should be supported by translating and localizing textbooks, courses or trainings on financial education, coaching, counseling and therapy developed in other countries, such as the U.S. A careful evaluation on the above strategy is needed. Meanwhile, Chinese social workers and scholars should also develop the curriculum and trainings on financial social work as applied to a Chinese context.

In the domain of research, social work has been absent in the academic conversation on financial literacy in China. For instance, none of the articles included in this review are authored by scholars in social work. However, social work scholars can take advantage of the social work discipline in financial literacy research. First, social work research focuses on disadvantaged populations who were given little attention in current literature. Social work scholars can address this gap uniquely by raising meaningful research questions relying on a large body of social work literature on the populations.

Second, the framework of financial capability proposed by social work scholars is clearly informed by the perspective of the person-in-the-environment. The framework suggests that financial literacy interacts with financial access, i.e. financial environment, and the interaction influences financial functioning and further financial wellbeing of a person (Huang et al., 2015; Huang, Nam, & Sherraden, 2013; Sherraden, 2013). One of the

advantages of the framework is that the relatively clear definitions of financial access and financial functioning can assist in setting the “territory” of financial literacy. For example, financial behaviors are categorized as financial functioning and are “scratched” from financial literacy. The definition of financial literacy, therefore, can be refined as mainly knowledge, which is clear for developing a measure. Moreover, the framework indicates financial literacy, financial access, and financial functioning are all means illustrating a path to financial wellbeing as the end. This sheds light on examining the validity of measures of financial literacy and stresses the importance of one of the ultimate questions of financial literacy research, i.e., what is financial wellbeing in Chinese contexts? The ultimate question has not been well answered in the literature, which is a significant obstacle for advancing research in financial literacy. Given a better understanding in the person-in-environment perspective, social work scholars in China are in an advantaged position to adopt the framework to contribute to the scholarship of financial literacy.

Third, social work research is practice-centered, which can promote the intervention/prevention research that is almost absent in the field of financial literacy research in China. The increase in intervention/prevention research would then accumulate evidence directly for practice and education, as well as compliment the research methods currently used in literature, as intervention/prevention research usually asks for rigorous methods, such as random control trial, quasi-experimental design and mixed methods.

In sum, the involvement of social work would lead to a deeper understanding of financial literacy in China via adding attention to practice and research on disadvantaged populations, enlightening theory development, and calling for intervention/prevention research. It is well positioned to contribute to the global discourse in the area.

Conclusion

Financial literacy research in China is much younger than in developed countries. Although the first publication (Wang & Xin) was released in 2003, most of the articles were published

in the last five years. The increasing research partly answers the call from micro practice and macro practitioners and reveals concerns about the level of financial literacy and the disparities associated with different demographics, particularly the rural-urban divide.

The research also presents several challenges. The fundamental one is the fitness of the definitions and measures of financial literacy developed in other countries. Financial literacy is a context-based concept, as no matter how financial literacy is conceptualized, either financial knowledge or behaviors need to adapt to the financial environment to achieve a desirable financial outcome. As described above, the Chinese financial environment differs from that of other countries. Further, cultural differences may cause systematic errors in measurement as well, such as the aforementioned study where Chinese were more likely to choose “don’t know” than other populations (Yin et al., 2014). Therefore, it is crucial to define financial literacy and its valid measurement within the Chinese context. A related challenge is the lack of studies on vulnerable populations, as most of the articles studied urban residents or the whole population.

Social work has not been active in the research of financial literacy in China, but it can and should play a role. As noted, one of social work’s primary frameworks, the “person-in-environment,” emphasizes fitness to the environment, and vulnerable populations are the target of social work research. Further, social work is practice-oriented, which can encourage more empirical research that is meaningful to implementation. Social work researchers are well positioned to meet many of the current challenges in financial literacy research in China.

Endnote

1. Share turnover is a measure of stock liquidity calculated by dividing the total number of shares traded over a period by the average number of shares outstanding for the period. The higher the share turnover, the more liquid company shares are (Investopedia, 2019, retrieved from <https://www.investopedia.com/terms/s/shareturnover.asp>).

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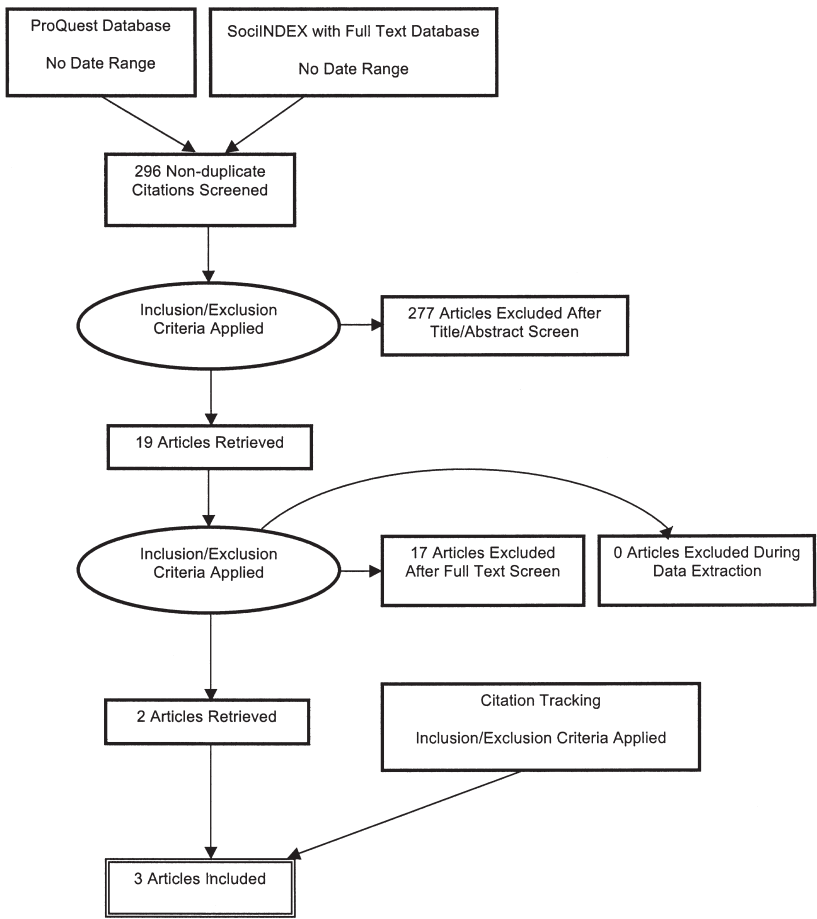
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APPENDIX

Figure 1. PRISMA flow chart of English articles.



APPENDIX

Figure 2. PRISMA flow chart of Chinese articles.

