Financial Wellbeing and Mental Health: A Systematic Review

MOHD FAIZUL HASSAN¹, NAFFISAH MOHD HASSAN², ERNE SUZILA KASSIM³,
YAHYA MAHYUDDIN UTOH SAID⁴

^{1, 2, 3}, Universiti Teknologi MARA, Cawangan Selangor, Kampus Puncak Alam, MALAYSIA.

⁴Federal Territory Islamic Religious Department, JAWI, MALAYSIA.

¹E-mail: faizulhassan@uitm.edu.my

²E-mail: naffi885@uitm.edu.my

³E-mail: ernekassim@uitm.edu.my

⁴E-mail: mahyuddin@jawi.gov.my

ABSTRACT

The aim of this study is to identify and appraise literatures on relationships between financial well-being and mental health. Conducting a systematic review on what is available from the literature is fundamental as a mean for keeping track of the study progress and synthesizing the emerging setting. The search was performed using related keywords of the two constructs from Psycinfo, Scopus and Google Scholar databases between the year 2001 and 2019. The initial search yields a combination of 2,222 papers and after performing the exclusion criteria, a total of 37 documents were used as the data. Analyses of the studies were conducted to answer the questions of what are the measures of financial wellbeing and mental health and how does financial wellbeing affect mental health? The findings suggest a diverse perspective of financial wellbeing and the term financial hardship, financial situation, financial strain, financial stress and financial security that carry similar meaning were used in literature. There were also various indicators that measure mental health and the use of CES-D, Brief Symptom Inventory (BSI), general health questionnaire (GHQ-28), Mental Health Index (MHI-5), International Diagnostic Interview (WHO-CIDI), Rosenberg Self-Esteem Scale, Goldberg Depression and Anxiety Scales, Depression Anxiety Stress (DASS-21) and Kessler 10 Measure of Psychological Distress (K10) was common. There is an increasing trend of the study and also consistent findings that indicate for significant relationship between financial wellbeing and mental health. Hence, taking a proactive prevention to keep a healthy financial wellbeing such as financial educating and financial literacy is very crucial to reduce the burden of mental depression, and further the burden of healthcare and social protection.

Keywords: mental health, financial wellbeing, financial hardship, depression, poverty and stress

JEL Classification: C1, L2

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1. Introduction

Depression, anxiety and stress are common mental health issues and have become the world's most pressing public health concerns. Data from the Global Health Data Exchange suggests the state of poor mental health problem is growing, with 17.3 percent or approximately 84 million people in Europe are suffering from the mental health challenge. Depression, anxiety, and stress are symptoms of poor mental health with depression and anxiety become the two most common mental health disorders in community (Organization, 2017). Likewise, a great concern of the public health is the rise of the anxiety and mood disorders (Greenglass et al., 2015). Meanwhile, a finding by (Fiksenbaum et al., 2017) also reported that 3.6% of people worldwide show the symptom of anxiety disorders, and 4.4% are suffering from depressive disorder. The mental health problem can lead to premature mortality and affects the quality of life. Research have also found mental health problems are among the most important contributors to the burden of other diseases and disability. Mental illness is a major source of loss of productivity and wellbeing. Losing the mental stability is additional burden to the economic development.

Many factors explain for mental health such as psychosocial stress (Alyousef, 2019), work related factors (Mo et al., 2020) and socio-economic factors (Anderson et al., 2018). Yet, statistics have shown for a consistent link between how the mental condition is affected by the status of financial wellbeing. As the world is facing serious issues of poverty, income instability and poor economic status and global financial crisis, more and more people are trapped in the financial stress situations. Data from the World Health Organization (WHO) indicates there is a steady rise in the percentage of individuals suffering from the financial hardship. This has triggered some worries on the financial burden and explained for today's mental health crisis.

Nowadays, the attention toward the personal financial wellbeing is increasing. Generally financial wellbeing is referring to person's ability to manage the current situation and also ongoing of financial obligations. It is how people feel secure about their financial matters at present or in the future, as the financial ability to make selections for them to enjoy life (Bureau, 2017). In fact, financial wellbeing is associated with financial literacy and financial behaviour. In the same way financial behaviour is one of the components that relates to financial satisfaction or financial wellbeing (Gerrans et al., 2014; Xiao et al., 2014). Likewise, financial wellbeing is broadly defined as the concept used to explain an individual's or a family's financial situation (Mokhtar et al., 2015). It is a subjective sentence towards person's financial status as in condition of zero burden, financially happy and financial healthy (Sabri & Zakaria, 2015). Certainly, financial wellbeing also defines the perception of people's regarding their financial knowledge and the way of controlling money and monetary value (De Witte et al., 2015).

While there are studies that examine for the relationship between financial wellbeing and mental health, attempts to explore the literature on the association is still lacking. Conducting a systematic review on what is available from the literature is fundamental as a mean for keeping track of the study progress and synthesizing the emerging setting. Therefore, the study was conducted to answer the following research questions, "what are the measures of financial wellbeing and mental health" and how does financial wellbeing affect mental health?

2. Research Methodology

The study has undertaken a systematic review of literature, known as a research synthesis for answering the research questions. Research synthesis and systematic literature reviews have gained increasing acceptance within social science research. It is aimed to overcome the issue of researcher bias by using a comprehensive search and analysis framework that combines cross-referencing between researchers, extensive searches of research databases and the application of exclusion criteria (Hedges & Cooper, 2009). Based on Cooper and Hedges (2009), there are six stages that govern a research synthesis; 1) define the problem, 2) collect the research evidence, 3) evaluate of the evidences for inclusion and exclusion (selection criteria), 4) analyze or integrate the evidences, 5) interpret the cumulative evidence and 6) present the synthesis methods and results. The main aim of

the paper is to provide the understanding of the indicators used to measure financial wellbeing and mental health, and to understand how financial wellbeing affects mental health.

The document retrieval started by searching for the evidences from Scopus-indexed journals, Google Scholar and Psychinfo that include both journals and conference proceedings. The following keywords were used to search for the article: “Financial well-being” „Indebtedness” or „Debt” and „Health” or „Mental disorder” or „Mental illness” or „Depression” or „Anxiety” or „Stress” or „Distress” or „Mental Health”. The words regarding the definition term of financial wellbeing with synonyms words were also identified. Although mental disorder is a very broad term, the scope is limited within the impact towards feelings such as distress or behaviors that relate to impairment of function. Table 1 illustrates the summary of the search strategy.

Table 1 Search Strategy for keyword

Terms that were used as a searching strategy for financial wellbeing (combined using OR)	financial difficult, debt, financial crisis, indebtedness, financial strain, debt, bankruptcy, financial difficulty,
Terms that were used as a search strategy for mental health (combined using OR)	mental illness, anxiety, depression, stress, mental disorder

The initial search produced a total of 2,222 documents. As suggested by (Tanskanen et al., 2017), the articles require further evaluations for inclusion and exclusion criteria. The inclusion and exclusion criteria are shown in Table 2.

Table 2 The inclusion and exclusion criteria

Criterion	Eligibility	Exclusion
Literature type	Journal (research articles)	Journals (systematic review), book series, book, chapter in book, conference proceeding, papers did not present primary empirical data (e.g., commentaries, news reports)
Language	English	Non-English
Time line	Between 20010-2019	<2010
Indexes	Social Science Citation Index, Emerging Sources Citation Index, Art and Humanities Index (Web of Science)	

Figure 1 The Process of Article Selection

The following diagram illustrates the process of identifying, screening and selecting the articles. After a careful deliberation and confirmation, a total of 32 articles were used as the data.

3. Results and Findings

The search strategy yielded 1272 results once duplicates were excluded. Most studies were conducted as surveys. Various indicators were used to measure both financial wellbeing and mental health that answer for the first question. Table 3 and Table 4 provide the list of the measurement tool. The common scales used to measure financial wellbeing are financial hardship, financial strain and personal economic distress. Financial hardship was used in studies conducted by (Butterworth et al., 2012) in a cross-sectional study of 8,841 participants aged 16–85 in Australia's national mental health and wellness survey and Kiely et al., (2015) also in Australia, but on the setting of income and labor dynamics. Financial strain was examined by (Selenko & Batinic, 2011) on a cross sectional study of clients of a national non-profit, publicly funded Austrian debt-counseling institution who faced bankruptcy, (Thinagaran et al., 2017) who conducted a survey in Malaysia on low-cost flats residents whose household income is within the poverty line.

Table 3 Measurement tools of Financial Wellbeing

No	Financial Well-Being Scale
1	Financial Hardship
2	Financial Well-Being Scale (FWBS)
3	Index of Personal Economic Distress (IPED)
4	Income and Labor Dynamics in Australia (HILDA)
5	Financial Threat Scale (FTS)
6	Economic Hardship Scale
7	Financial strain

In identifying the similar term of mental health measurement, seven studies were found to use the general health questionnaire (GHQ) in which it is a scale to measure the current mental health, developed by Goldberg (1970). The original GHQ has a 60-item instrument, but as studies in mental health evolve, efforts were made to simplify and shorten the general health questionnaire, that include versions of GHQ-30, GHQ-28, GHQ-20 and GHQ-12. Other scales which are common to measure mental health are Kessler Psychological Distress Scale, Mental health inventory MH-5 and Structured Clinical Interview etc.

Table 4 Measurement tools of Mental Health

No	Mental Health Scale
1	Mental Health Inventory (MHI-18)
2	Kessler Psychological Distress Scale (K10)
3	Structured Clinical Interview (SCI-D)
4	Anxiety Disorder Assessment (GAD 7)
5	Patient Health Questionnaire (PHQ-8)
6	Mental Health Inventory (MHI-5)
7	Depression Anxiety Stress Scale 21 Item Version (DASS-21)
8	Depression Scale (CESD8)
9	Structured Clinical Interview (SCID-I)
10	The 6-Item depression subscale of The Symptoms Inventory (BSI)
11	Index from the Centre for Epidemiological Studies Depression (CES-D) Scale.
12	General Health Questionnaire

3.1. Financial Hardship and Mental Health

This section answers the question of how does financial wellbeing affect mental health? In assessing the relationship between financial wellbeing and mental health, a summary of the studies is presented in Table 5. As there are different scales and measures, yet each of them is measuring the similar concept, the discussion will be based on the specific term and scale. To begin, the assessment was conducted on the relationship between financial hardship and mental health. It was found there are three studies conducted. (Kiely et al., 2015) concluded that current hardship was associated with the increased risk to the mental health problems. Similarly, the study conducted by (M. Taylor et al., 2017) revealed financial hardship factors formed as the strongest associations with reported psychological distress among Western Sydney parents, particularly those factors related to mortgage/housing and employment security. On the other hand, (Economou et al., 2018) agreed that financial hardship was found to be risk factors for major depression.. (Butterworth et al., 2011) used longitudinal data to investigate whether the benefits of having a job depend on its psychosocial quality (levels of control, demands and complexity, job insecurity, and unfair pay) and whether poor quality jobs are associated with better mental health than unemployment. The findings on financial hardship were more strongly associated with depression than other socio-economic variables.

Next, the assessment on the relationship between financial strain and mental health suggests for consistent trend. (Aranda & Lincoln, 2011) examined the relationship between financial strain and depressive symptoms in later life, and potential psychosocial mediators of this relationship to test the direct effect of chronic financial strain on depressive symptomatology. The findings indicated that financial strain increased the level of depressive symptoms among this sample. (Zürcher et al., 2019) collected data from 511 individuals with SCI aged over 16 years who participated in the community survey of the Swiss SCI Cohort Study (SwiSCI), and observed an association between Financial strain was associated with general mental health problems and depressive. (Tøge, 2016) used longitudinal data and methods to investigate whether the effect of unemployment on self-rated health (SRH) is mediated by income, financial strain and unemployment benefits. The findings gave the evidences that financial strain is a potential mediator of the individual health effect of unemployment. (Thinagaran et al., 2017) identified that the financial strain has a positive influence by financial behavior and has a negative influence on personal well-being especially to the urban poor community.

Furthermore, using the assessment of financial stress, it was found four studies were within the investigation. (Mandaliya et al., 2016) who conducted a cross-sectional study that involved 65 oncology outpatients found financial stress was not only significantly associated with the cancer-specific quality of life-related issues, but also family-related anxiety, and recurrence-related distress. Meanwhile (Sturgeon et al., 2016) highlighted that financial stress demonstrates the complex relations with the inflammation effects of the psychological wellbeing. This study is similarly with the findings by (Åslund et al., 2014) who found for significant interactions between financial stress, particularly in relation to low psychological well-being.

Table 5 Characteristic of included studies

Authors	Year	Study Design	Method	Mental Health	Financial Well - Being	Conclusion	Relationship between Financial Wellbeing and Mental Health issues
(Wilkinson, 2016)	2016	Cross Sectional survey	This research is concentrated on 5,366 respondents from the Health and Retirement Study (2006–2010) (n = 5,366)	8 item index of the Center for Epidemiologic Research on Depression (CES-D) of the scale.	(a) labour force participation, (b) household income, (c) financial wealth, and (d) net home equity.	The financial resources associated with increased financial strain	Recession not only affected older adults' financial well-being but also adversely affected mental health

Authors	Year	Study Design	Method	Mental Health	Financial Well - Being	Conclusion	Relationship between Financial Wellbeing and Mental Health issues
(Aranda & Lincoln, 2011)	2011	Cross Sectional survey	Sample of 214 low-income Latino adults using structural equation modeling to test the direct effect of persistent financial strain on depressive symptoms. (n = 214)	The 6-item depression subscale of the Brief Symptom Inventory (BSI)	financial strain	Financial strain increased the level of depressive symptoms among the respondents	The differential effect of financial stress and coping styles on psychological well-being and the future psychosocial objectives of treatments for older adults with chronic health conditions.
(Lewko et al., 2019)	2019	Cross Sectional survey	The study was conducted in a group of 523 randomly selected professionally active nurses aged over 40 years old from the Podlaskie Voivodeship (n = 523)	the general health questionnaire (GHQ-28),	satisfaction with life scale (SWLS)	Respondent s' financial situation greatly influenced their quality of life and affected mental health components	The mental health component was found to be significantly affected by financial situation
(Rajani et al., 2016)	2016	Linear regression	The sample consisted of employed people from 27 European countries where the Eurobarometer survey (73.2 wave, 2010) was administered by the European Commission	Mental Health Index (MHI-5)	job insecurity and financial difficulties	This research highlights the negative effects of work instability and financial difficulties on EU mental health. Employee assistance facing job security issues should be a priority, regardless of financial circumstances.	Poor mental health can also increase work insecurity, so the detected association may be bi-directional.

Authors	Year	Study Design	Method	Mental Health	Financial Well - Being	Conclusion	Relationship between Financial Wellbeing and Mental Health issues
(Zürcher et al., 2019)	2019	Cross Sectional data	cross-sectional data from 511 individuals with SCI aged over 16 years who participated in the community survey of the Swiss SCI Cohort Study (SwiSCI). (n = 511)	Mental Health Inventory (MHI-5)	household income, and financial strain	This study provides evidence of socioeconomic differences in social relationships and independent correlations of financial strain and poor social relationships in individuals with SCI with mental health issues.	Financial strain was associated with general mental health issues and depression, but education and household income were not related to mental health
(Esan et al., 2012)	2012	an epidemiological survey	An epidemiological study examined mental illnesses and personal earnings in a representative sample of 1,889 Nigerians aged 18-64 years., (n = 1,889)	International Diagnostic Interview (WHO-CIDI)	Personal earnings before tax in the past 12 months	Mental illnesses have significant negative effects both at the individual and social level on earnings. This study highlights the financial value of lost wages without such disorders.	Mental illnesses have a significant individual and community financial burden. This impact is more severe in men

Authors	Year	Study Design	Method	Mental Health	Financial Well - Being	Conclusion	Relationship between Financial Wellbeing and Mental Health issues
(Jones et al., 2018)	2019	cross-sectional	National Health and Aging Trends Study (NHATS). Participants data gathered (n = 307)	Depressive symptoms were assessed using the Patient Health Questionnaire 2 (PHQ2). General anxiety was assessed using the Generalized Anxiety Disorder 2 (GAD2). Self-rated health. Self-rated health was assessed using the standard single item measure	Financial problem reported in the past year counting toward of the financial problems	The first survey's financial burden predicted depressive symptoms the first survey did not predict later financial burdens Depressive symptoms, general anxiety, and self-rated well-being	Financial support for the prediction of depressive symptoms, general anxiety and self-rated wellbeing have been found.
(Antunes et al., 2019)	2019	Cross sectional	The data gathered from the 3 of primary health centres in Lisbon Metropolitan Area. Focus groups and interviews with consumers and experts were conducted in a semi-structured way. Interview and orally transcribed by using thematically analysing	Indicators of mental health and wellbeing	Financial situation	This study provided a comprehensive overview of the bidirectional relationship between socioeconomic conditions and mental health.	Emphasizing the need to develop policies to address the drivers of poor mental health during times of economic downturn and tackle the barriers faced by people with mental disorders to promote their full social inclusion.
(Economou et al., 2016)	2016	Cross-sectional	A random and representative sample of 2,188 people was interviewed by telephone about various socio-economic measures, major depression and suicidality (n=2188)	Structured Clinical Interview (SCID)	Index of Personal Economic Distress (IPED),	Economic hardship and unemployment's impact on suicidality were also significant and independent of major depression.	Results emphasize the urgent need to design and implement social policies and measures to mitigate the dire impact of Greece's sustained recession.

Authors	Year	Study Design	Method	Mental Health	Financial Well - Being	Conclusion	Relationship between Financial Wellbeing and Mental Health issues
(Tøge, 2016)	2016	Cross-sectional	This study uses the European Union Income and Living Statistics (EU-SILC) panel 2008–2011 covering 28 European countries (EU-28 except for Germany and Ireland plus Norway and Iceland)	General Health Questionnaire (GHQ-12)	Individual fixed effects models	The financial burden is found to be a possible mediator of the personal health effects of unemployment. In contrast, neither total income, relative income, relative rank, income deprivation, nor unemployment benefits are found to be mediators of that relationship	Financial strain as mediators of the health impact of unemployment in the first years of Europe's financial crisis
(Richardson et al., 2019)	2019	Cross sectional	Fifty-four participants diagnosed with bipolar disorder in an adult secondary NHS mental health service completed the questionnaire set, which included steps to evaluate financial variables, including bill payment difficulties and perceived financial well-being. (n = 54)	Rosenberg Self-Esteem Scale (Rosenberg, 1989): Mindful Attention Awareness Scale	Index of Financial Stress	Financial difficulties contribute to bipolar disorder's mental health. Poor mental wellbeing leads to compulsive buying, while financial concern raises anxiety and stress with a vicious anxiety cycle.	Greater anxiety and stress were significantly linked to higher compulsive purchasing ratings and lower perceived financial well-being.

Authors	Year	Study Design	Method	Mental Health	Financial Well - Being	Conclusion	Relationship between Financial Wellbeing and Mental Health issues
(Mandaliya et al., 2016)	2016	Cross sectional	In this cross-sectional study, 65 participants visiting the outpatient oncology clinic obtained a self-administered questionnaire. (n = 65)	Standard Quality of Life in Adult Cancer Survivors Scale (QLACS)	Personal and Household Finances (HILDA)	financial stress was significantly associated with the cancer-specific quality of life-related issues, family-related anxiety, and recurrence-related distress.	Most demographic characteristics were not correlated with financial stress.
(Sturgeon et al., 2016)	2016	Cross sectional	A group sample of 680 middle-aged adults (age 40–65) assessed stressful financial and interpersonal activities over the previous year, perceived social standing, indices of psychological well-being and anxiety, and levels of interleukin-6 and C-reactive protein. (n = 680)	Mental Health Inventory (MHI-18)	Psychiatric Epidemiology Research Interview (PERI) Life Events Scale (25)	Financial stress indicates complex inflammation relationship, partially due to psychological well-being and social perceptions.	Individuals experiencing more significant financial stressors over the previous year showed more interpersonal stressors, greater psychological distress, and lower psychological well-being.
(Åslund et al., 2014)	2014	Cross sectional	In 2004 and 2008, two independent postal surveys were sent to random samples in five counties in Sweden. (n=84263)	(General Health Questionnaire-12).	Financial stress	Social help had the most significant impact on high financial stress. Strengthening social networks can influence healthcare costs and increase the quality of life.	Significant interactions between financial stress and social support, particularly with low psychological well-being.

Authors	Year	Study Design	Method	Mental Health	Financial Well - Being	Conclusion	Relationship between Financial Wellbeing and Mental Health issues
(Economou et al., 2013)	2013		In 2008 and 2011, two national cross-sectional telephone surveys followed the same approach. A random sample of 2,197 and 2,256 individuals, respectively, participated in the studies. (n=4453)	Structured Clinical Interview (SCID-I)	the Index of Personal Economic Distress was employed (Madianos et al., 2011).	A profound and detrimental impact of the economic crisis on the Greek population's mental health, and particularly on the prevalence of major depression.	The economic crisis' effect on the population's mental wellbeing is widespread.
(Butterworth et al., 2012)	2012	Cross sectional	Data from 8,841 participants aged 16–85 in Australia's 2007 National Mental Health and Wellness Survey. (n=8841)	Mental Health Composite International Diagnostic Interview (WMH-CIDI 3.0)	Financial hardship	The findings show the crucial role of financial hardship in the relationship between socio-economic disadvantage and 12-month depressive episode and indicate that social and economic policies addressing inequality in living conditions could be an effective way to minimize the burden of depression.	Financial hardship was related to depression than other socio-economic factors.

Authors	Year	Study Design	Method	Mental Health	Financial Well - Being	Conclusion	Relationship between Financial Wellbeing and Mental Health issues
(Sargent-Cox et al., 2011)	2011	Prospective cohort study (20e24, 40e44, and 60e65 years at baseline)	Participants were drawn from the PATH Through Life Study, a large longitudinal cohort study (20e24, 40e44, and 60e65years at baseline) from the Canberra/Queanbeyan districts, Australia.	Goldberg Depression and Anxiety Scales	Financial security	A unique contribution to social and health literature by explaining the physical and mental health consequences of older adults	A substantial increase in symptoms of depression and anxiety during the GFC (Global Financial Crisis) era, not explained by demographic or socioeconomic factors such as increased financial hardship over time
(Oskrochi et al., 2018)	2018	Cross sectional	Data from the British Household Panel Survey (BHPS) and the Understanding Society Survey (USS).	General Health Questionnaire (GHQ)	British Household Panel Survey (BHPS) and Understanding Society (US)	Clear effects on both men and women's well-being as the head of a household have been noticed.	financial status has a significant impact on the psychological wellbeing.
(Richardson et al., 2017)	2017	Cross sectional	A longitudinal design was used to evaluate whether financial variables influence mental health overtime changes in undergraduates	(CORE-GP)	Index of Financial Stress (IFS)	Financial difficulties seem to cause poor mental health in students with the prospect of a vicious cycle.	Financial factors tend to lead to poor mental health rather than mental health issues. More significant financial problems cross-sectionally expected greater depression and stress and predicted worse anxiety.

Authors	Year	Study Design	Method	Mental Health	Financial Well - Being	Conclusion	Relationship between Financial Wellbeing and Mental Health issues
(Archuleta et al., 2019)	2019	Cross sectional	The financial clinic used quasi-experimental approaches as both A Financial Planning and Financial Counseling Research and Training Clinic	Financial Anxiety Scale (FAS)	Solution-Focused Financial Therapy (SFFT)	Results indicate that Solution-Focused Financial Therapy (SFFT) approach to targeting can reduce short-term financial anxiety. Implications for mental wellbeing, financial, and study therapy practice are formed.	Financial anxiety tends to have a significant influence on the lives of many Americans (APA Stress in America)
(Chaves et al., 2018)	2018		The current study examines data collected in Spain from Round 3 (R3, 2006/2007) and Round 6 (R6, 2013) of the ESS	Depression Scale (CESD8, Radloff	Life satisfaction	Economic crises are associated with increased depressive symptoms.	Financial crises tend to have a corrosive impact on mental wellbeing by reducing the mediating influence of positive values on a good society.
(Thinagaran et al., 2017)	2017	Cross sectional	The survey consists of 1064 respondents from low-cost flats whose household income is below RM3000 from the Kuala Lumpur City Hall (DBKL) list using a purposeful sampling method (n = 1064)	Financial Well-Being	Financial strains	Financial behavior has a positive impact, and financial strain negatively affects the urban poor community's well-being.	The financial strain affects the urban poor community's well-being

Authors	Year	Study Design	Method	Mental Health	Financial Well - Being	Conclusion	Relationship between Financial Wellbeing and Mental Health issues
(Viseu et al., 2018)	2018	Cross sectional	The sample of this study consisted of 729 Portuguese participants, 247 (33.9%) males, and 482 (66.1%) female structural equation modeling (SEM) was used to examine the defined relationships. (n = 729)	Depression Anxiety Stress Scale 21-item version (DASS-21)	Financial well-being was assessed by the Financial Well-Being Scale (FWBS)	The sample collected does not represent the Portuguese population Economic stressors (economic hardship, financial risk, and financial well-being) relate positively to stress, anxiety, and depression.	Statistically significant variations have been identified in the relationship between financial threat and depression and between economic hardship and anxiety, anxiety, and depression
(Bowers et al., 2018)	2018	Cross sectional	The survey was conducted by 1124 workers at remote construction and open cut and underground mining sites. (n = 1124)	The Kessler Psychological Distress Scale questionnaire (K10)	financial situation	Psychological distress is significantly more prevalent in remote mining and construction workers than in the overall Australian population. Factors that contribute to mental illness among these workers need to be explored and stigma associated with mental health issues minimized	People who reported stress due to the stigmatization of mental health problems were at the highest risk of high/very high psychological distress.
(M. Taylor et al., 2017)	2017	Cross sectional	This study investigated psychological distress among parents in Western Sydney households (n = 439)	Kessler 10 Measure of Psychological Distress (K10).	Income and Labour Dynamics in Australia (HILDA)	Financial hardship factors formed the strongest associations of reported psychological distress among Western Sydney parents, especially those related to mortgage/housing and job security.	Multivariate analysis showed that financial hardship factors influenced the strongest psychological distress correlations

Authors	Year	Study Design	Method	Mental Health	Financial Well - Being	Conclusion	Relationship between Financial Wellbeing and Mental Health issues
(Kiely et al., 2015)	2015	Cross sectional	Income and Labour Dynamics in Australia (HILDA) survey. (n = 11,134)	Mental Health Inventory (MHI-5)	Financial hardship	Existing hardship was linked to increased mental health risk. This was beyond those exposed to hardship and deprivation's poorer mental health.	Individuals with difficulties at any stage in the research had higher rates of mental health issues than those never subject to struggle
(Furey et al., 2016).	2016	Cross sectional	All participants have involved farmers (n=121) aged 18-80. The 45- to 54-year-old group (33.9%, n=41) was the most common age group. Ethnicity included Euro-Caucasians (n = 121).	Patient Health Questionnaire (PHQ-8) Anxiety Disorder Assessment (GAD 7).	Financial Threat Scale (FTS)	Mental distress directly effects of non-financial farm stress (FS) approached significance. Mental distress mediated these relationships as evidenced by significant indirect effects of farm stress (FS) and financial threat (FT), and Social Support served to reduce distress.	Financial threat (FT), mental health concerns prevention is better than cure from both an economic and a social justice perspective.

Authors	Year	Study Design	Method	Mental Health	Financial Well - Being	Conclusion	Relationship between Financial Wellbeing and Mental Health issues
(Economou et al., 2018)	2018	Qualitative variables are presented with absolute and relative frequencies	A random and representative sample of 600 adult Cypriots participated in the study by attempting to explore the prevalence and correlates of major depression in Cyprus during the financial crisis. (n = 600)	Structured Clinical Interview (SCI-D)	Index of Personal Economical Distress (IPED)	Financial hardship was found to be a risk factor for major depression, while social networks and institutional trust were found to be protective.	The impact of the financial crisis on mental health is unequally distributed among Cyprus' general population.
(Wan et al., 2019)	2019	Hierarchical regression	A stratified sample of CAF participants from three representative bases (Petawawa, Halifax, and Cold Lake; N = 4,700) was sent to complete the online Military Group Wellness. (n = 4,700)	Kessler Psychological Distress Scale (K10)	Overall Life Satisfaction Scale	Financial satisfaction is a significant indicator of life satisfaction and psychological distress among members of the Canadian Armed Forces (CAF).	Financial satisfaction expected psychological distress.
(Selenko & Batinic, 2011)	2011	Cross sectional	Clients of a national non-profit, publicly funded Austrian debt-counseling institution facing bankruptcy filing. Their counselors met them in Spring 2009 (n=106)	General Health Questionnaire	financial strain	The results show the importance of subjective economic stress in predicting mental health among persons under severe financial pressure and indicate essential moderators.	The findings show the importance of subjective economic stress on predicting mental health among people under severe financial strain and point to important moderators of this relationship.

Authors	Year	Study Design	Method	Mental Health	Financial Well - Being	Conclusion	Relationship between Financial Wellbeing and Mental Health issues
(M. P. Taylor et al., 2011)	2011	Prospective cohort (2 waves)	They were using National Representative Survey. Data from the British Household Survey 1991–2006 was used to build a measure of financial ability.	General Health Questionnaire	Data from the 1991–2006 British Household Panel Survey was used to measure financial capacity.	The financial potential has significant psychological health consequences.	The effect of having low financial capacity is known to be a significant determinant of mental illness, with low financial capacity worsening psychological costs.
(Marjanovic et al., 2013)	2013	Cross sectional	Participants were undergraduate psychology (n=292) and business students (n=188) who completed a 30-minute online questionnaire as part of a broader inquiry into an economic downturn and mental health. (n = 480)	General Health Questionnaire	Economic Hardship Scale	Studies have shown that the FTS is useful as both a psychological indicator, and perhaps its most significant advantage over other indicators is its general ability.	The Financial Threat Scale (FTS) also correlated with all the predicted psychological health interventions. It was positively associated with psychological distress and mood disturbance in combination with the current financial situation.

Key: 1. The research question or objective in this paper clearly stated.
2. The study design and study population clearly defined.
3. The tool of mental health and financial well-being clearly stated.
4. The Independent Variables clearly defined, valid and reliable to all study participants.
5. The Dependent Variables clearly defined, valid and reliable to all study participants.

3.2. Summary of Evidence

Overall, this study found 32 papers exploring relationships between financial well-being and mental health. Findings have varied by assessing methods used for each financial well-being and mental well-being. 4 Longitudinal experiments were used to examine the relationship between variables. The bidirectional relationship between financial problems and mental health was minimal.

Most of the findings shown that financial well-being has a significant impact on mental health. This systematic study uses many methods to assess financial well-being and mental health. Tool selection depends on research methodology and objectives. Evidence of financial hardship, the financial burden on mental health was more consistent. The financial well-being of mental health is also used as a measure of stress, anxiety and depression. Most studies have shown that financial hardship is closer to depression.

Greater financial difficulties predicted for increased depression and stress, and also predicted for poorer anxiety. Besides, five studies have indicated that the economic downturn impacts have also contributed to mental health concerns, which have been positively related to a substantial rise in depressive symptoms. A substantial rise in symptoms of depression and anxiety was found during the GFC (Global Finance Crisis). On the negative side, the recession impacted individuals' financial well-being and had adverse mental health effects. To summarize, it was found that the mental health aspect was greatly affected by the financial situation.

3.3. Financial Wellbeing Measurement Tools

The analysis showed most of the studies used cross-sectional for the design of the research study. Most of the quantitative research contrasted and used less qualitatively. In a cross-section, the researcher analyses the outcome and exposures of the study participants simultaneously, particularly from financial well-being and assessment of mental well-being. From the analysis, it could be said that most cross-section studies are easier to collect data and can be easily measured and applied to the target populations; on the other hand, they are easier to execute and more managed. In several reports, financial well-being and assessment of mental health over different periods, financial distress was assessed by asking the respondent to gather information from the measurement of financial well-being.

From the measurement tools in this study review, there is an evidence on the relationship between financial strain and mental health. (Aranda & Lincoln, 2011) defined that the financial strain is a chronic economic stressor that can have especially adverse effects on an individual's well-being. The findings stated the financial strain increased the level of depressive symptoms among this sample. It is align with (Zürcher et al., 2019) whereby prove that the financial strain was associated with general mental health problems and depressive symptomatology. Meanwhile for others study that using financial strain in financial well-being measurement conducted by (Thinagaran et al., 2017) which is the data was obtained by using self-administered questionnaires and the data being analyzed by descriptive analysis meanwhile, and multi regression analysis shows that financial strain has a negative influence on the personal well-being of the poor urban community. (Selenko & Batinic, 2011) indicated there is a significant negative effect of perceived financial strain on mental health. Hence, it could be concluded financial strain has a major effect on mental health even if the study setting differs for each setting.

The study examined the association between economic stress factors and stress, anxiety, and depression, as well as the moderating effect of social support using financial well-being measured by the financial Well-Being Scale (FWBS) (Viseu et al., 2018); (Norvilitis et al., 2003) With the eight-point Likert scale (1– Strongly disagree; 5–Strongly agree) argument (e.g., I am uncomfortable with the amount of debt I am in). The value of the Variance Derived (AVE) is 0.66. This study presents some considerable limitations. The collected sample may not represent the Portuguese population involved and comprises 729 Portuguese participants, 247 (33.9%) males, and 482 (66.1%) females. Nevertheless, their composition is rather unbalanced. The number of working persons constitutes 80% of the overall sample, while 20% comprises unemployed or retired persons.

Therefore, a comparison will often favor the group employed to the detriment of the other two groups. However, the results may be adapted. It could be useful to perform parallel research in other countries about how the mental health factor can affect adverse financial well-being situations. (Economou et al., 2018) used Index of Personal Economic Distress (IPED) analysis as to evaluate the degree of the financial strain of the participants. As an overview, IPED is the instrument used to assess financial well-being. The tools are an initial, self-reported scale that affects participants' difficulty managing financial needs over the last 6 months. Activities shall be calculated as to the payment of a loan/credit card bill, monthly rent, taxes. IPED included 8 items, responses on a 3-point scale (1 = never, 2 = often, and 3 = often and a composite score of '15 and above' suggested high financial distress. The internal consistency of the scale was found to be strong (Cronbach α = 0.77). From the results of financial strain elements, using IPED, paying household bills is the strongest association with major depression in univariate analysis.

Overall, people who sometimes/often experience difficulties in paying these expenses showed a significantly higher risk of severe depression than those who rarely/never face these difficulties or still have no expenses. Only rent payment was not correlated with major depression. Another research using IPED as a financial well-being measurement (Economou et al., 2013) was performed using the Two national cross-sectional telephone surveys methods in 2008 and 2011 in the same methodology. The particular self-reported measure encompasses eight questions illustrating the difficulty of

participants meeting a household's daily financial demands (from loan payments to grocery payments) over the past six months. Responses are rendered on a three-point scale, representing frequency dimensions: never (1), often (2), and sometimes (3), while the composite scale will vary from 8 (no economic problems) to 24 (serious economic problems). A significant correlation was noticed between major depression and economic hardship. (Economou et al., 2016). Meanwhile, a stratified sampling technique for 2,188 citizens was performed to estimate the incidence of major depression. Participants' degree of financial difficulty was assessed by the Personal Economic Distress Index (IPED) and found that unemployment and economic hardship were found to increase the probability of suffering from major depression.

On the other hand, Financial well-being tools with a reliable financial treatment scale (FTS) (Cronbach's $\alpha=0.89$). FTS has proven reliability. The FTS was developed based on current threat and threat research to evaluate hypothesized FT. The items represent areas related to (i) risk threat (e.g., "How much do you feel at risk?"); (ii) threat-related concerns; (iii) anticipated threat; (iv) mental fixation on individual personal finances, and (v) threat uncertainty. For each element, participants responded on a five-point scale ranging from 1 (Not at all) to 5 (Extremely), indicating the accuracy of statements representing their personal feelings about current FTs.

Participants completed the entire FTS scale of five items. Two items from the Family, Income, and Labor Dynamics in Australia (HILDA) survey to measure financial well-being were analyzed in other environments (M. Taylor et al., 2017) in a study using household financial pressure. A random sample of adults aged over 18 years) living in the western suburbs of Sydney, NSW, where the research participants. Variables of financial stressors were independently examined, with variables of individual and community support significantly correlated with increased psychological distress.

3.4. Mental Health Measurement Tools

From this Systematic Literature Reviews, General Health Questionnaire – 12 utilized by (Marjanovic et al., 2013) GHQ-12 is a commonly used, brief measure of psychological distress issues such as depression, anxiety, social functioning, and confidence. In this setting research, undergraduate psychology students ($n=292$) and business students ($n=188$) completed a 30-minute online questionnaire as part of a wider investigation into an economic downturn and mental health. The findings revealed a positive correlation with psychological distress (i.e., GHQ-12 reverse score; $r=.38$, $p<.001$), depression ($r=.36$, $p<.001$), anxiety ($r=.34$, $p<.001$), and mood disturbance related to one's current financial situation ($r=.65$, $p<.001$). (M. P. Taylor et al., 2011) Using the 12-item General Health Questionnaire, respondents' psychological health results show that those with high financial capacity experienced a decrease in their GHQ scores. In contrast, those with low financial capacity experienced GHQ scores.

Financial status and male gender have long been associated with mental-wellbeing scores supported by the study (Oskrochi et al., 2018) that men with low financial capacity affect mental health. In comparison (Lewko et al., 2019), using the General health questionnaire (GHQ-28) as a screening tool to assess the existence of mental illness and allow the different mental health populations studied. The mental health component was found to have a significant financial influence ($p=0.005$). The types of General Health Questionnaire used to rely on the study's objective and setting to use GHQ-12 or (GHQ-28).

To conclude, all findings that specifically addressed that financial capacity is positively associated with psychological wellbeing. GHQ-12 used in this study is a simple, reliable, and responsive short form—ideal for research studies. However, this measure is not precise in many works of literature to evaluate the degree, different types of mental illness compare Depression Anxiety Stress Scale 21-item version (DASS-21) that the most accurate and useful for evaluating common mental health symptoms is especially depression, anxiety, and stress, and the three dimensions of DASS-21 consists of twenty-one items. DASS-21 measures depression, stress, and anxiety. These three elements. Depression Anxiety Stress Scales (DASS) were translated. Moreover, validated in different languages in different

communities. DASS's original version consists of 42 objects. However, the latest version has been adjusted as it is best used for either clinical or non-clinical settings (Crawford & Henry, 2003). Reason for using the DASS-21 questionnaire for mental health measurements, as the questionnaire items are simple and easy to understand by the respondents, as there is no training required compared to other Psychometric research. Using DASS-21, researchers will concurrently assess stress, anxiety, and depression levels. All of the cultural-free question in the DASS-21, not one of the objects, is listed or linked to any culture or religion. Therefore, DASS-21 will be used to assess correspondence mental wellbeing.

4. Conclusion

The results reveal that from systematically reviewing the literature in the context of financial hardship and mental health, the effect of psychological variables was examined in order to decide which variables the mechanisms are most frequently and reliably concerned. The findings also revealed that in some studies, these variables had been considered. This review also involves studies of various designs conducted with a variety of populations from around the world, in the context of financial hardship, psychological variables associated with mental health. This is important to the next future direction as it will help the researchers, policymakers to strategies for the next exploration within the same area.

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