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Longitudinal Changes in the Relationship between Money, Financial Responsibility and Mental Health in the UK: Are we Becoming Less Future Focused?

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Abstract

This paper investigated the changing relationship between socioeconomic factors and mental health over time. Data were analysed from the *Understanding Society Database*, a representative sample of the UK population consisting of a potential of 150,393 respondents. Multiple regression coefficients over 13 years were compared over time to analyse effects of various financial predictors on mental health. Data was then split according to who reported financial responsibility for the household to investigate the effect of financial responsibility. While analysis suggested a similar pattern of predictors for mental health from the range of socioeconomic variables selected relative to other studies, temporal analysis demonstrated that perception of one's future financial position diminished in influence on mental health over time, whereas financial variables which were grounded in one's current situation increased in predictive power. The results suggest that individuals are more concerned with current financial pressures and are less affected by what may happen in the future. The results also suggested that financial responsibility was not a strong predictor of the influence of financial situation on mental health. This finding has potential implications for employers, policy makers and mental health practitioners.

Keywords: ***Mental Health; Finance; financial variables; GHQ-12; Longitudinal.***

Introduction

Throughout history it was assumed that every generation would be in a stronger socio-economic position than the generation which preceded them, with Joseph Pilates describing time and progress as synonyms. While this trend has been apparent over the last century, in relation to numerous metrics such as infant mortality (ONS, 2017), life expectancy (ONS, 2015) and disposable income (2023) research suggests this may not be the case anymore. For the first time in recorded history young people today, may anticipate a lower quality of life and may actually earn less and experience a lower quality of life than their forebearers (e.g., O'Connor, 2018). Research from the Intergenerational Foundation (Hobby, 2022) has suggested that the disposable income available to an average 27-year-old in the UK may drop by as much as 30% in the next four years, which at time of writing is 2027. This drop in expected quality of life coincides with substantial changes in levels of employment status. The use of non-permanent (e.g., zero-hours) contracts has been increasing significantly over the last decade (Bender & Theodosiou, 2017) and there is evidence that economic uncertainty is prevalent in public discourse (Baker et al., 2021) This has only been exacerbated in the wake of the Covid pandemic (Ma et al., 2022). It must be noted however that human beings have been shown to be resilient to environmental changes and return to a baseline after prolonged exposure to adversity (Brickman & Campbell, 1971). How this shift in attitudes and experiences affects the relationship between financial variables and mental health, is unclear and is the focus of this paper.

Traditional views of the causal relationship between financial situation and mental health were resource based, albeit on a diminishing returns basis (Subramanian & Kawachi, 2004), suggesting that those who were placed under financial stress would experience poor mental health. However, standard economic theories also proposed that individuals in good health would earn higher wages, (e.g., Luft, 1975; Lee 1982). With such debate about the directionality of the finance-mental health relationship, a correlational approach was thus deemed insufficient to examine directional effects (Ettner, 1995), with Geishecker (2012) arguing that correlational research could be underestimating the effect sizes by as much as a factor of three. The consensus within the literature is that the direction is somewhat bidirectional (Subramanian et al., 2002). Statistical modelling techniques attempted to demonstrate the directionality of said relationship in the mid 90's (Ettner, 1995) with some success in later years (Marmot, 2002). The most recent

analyses have utilised fixed effect models (Kromydas et al., 2021) or exogenous instrument variables (Kopasker et al., 2018) to attempt to overcome directional analyses problems (for further information on establishing cause and effect in non-experimental data see Pokropek, 2016).

Oskrochi et al. (2018) suggested that socioeconomic variables (e.g., qualifications, income, job satisfaction) can predict mental health outcomes (e.g., perceived psychological distress), and therefore compared several socioeconomic variables in their analysis. Their results showed that in general, measures which related to absolute figures represented poorer predictors of mental health in relation to subjective measures. They argued that subjective measures may capture so called *soft* factors such as one's perception of 'standing in a community' and inequality. In addition, subjective measures, being relative rather than absolute may account for differing buying power in various geographical locations, i.e. buying power being weaker in capital cities and affluent areas. e (for a fuller explanation of "soft factors" see Oskrochi, et al., 2018). An explanation for why an increase in income alone might not affect the psychological well-being of people may be attributed to Diener et al. (2012) who proposed that when income increases for people with a low income, they tended to compare their lifestyle to that of high-income earners, and likewise high-income earners compare themselves to those with even higher financial status. This may account for the plateau in the relationship between mental health and income (Sugiura & Sugiura, 2018). Money has been shown to enhance life satisfaction via social comparison (Christoph, 2010). Moreover, when individuals' compare their income people of their own social group, this is significantly predictive of their life satisfaction (Wolbring et al., 2013). This view incorporates a more social perspective to the psychological explanation for the money-mental health relationship, providing additional clarity than a purely resource-based approach, with Subramanian et al. (2004) suggesting that inequality as well as wealth was predictive of mental health outcomes.

Research by Netemeyer et al. (2017), proposed the concept of 'financial wellbeing', which comprised of two components, current financial situation, and future financial situation. They argued that income was not a direct predictor of well-being but rather moderates money management stress and well-being, that is, when stress levels are high the presence of higher income leads to better wellbeing. Therefore, financial stress has particularly negative psychological effects on individuals with low income. In support of a two-factor model of financial wellbeing, Clark and Georgellis (2013) investigated individuals who anticipated financial hardship specifically unemployment. They found that negative outcomes were apparent before the effects of the financial hardship had manifested (I.e., individuals would experience downturns in mental health prior to unemployment and prior to experiencing financial hardship, because of anticipatory effects and after unemployment due to restricted resources). The presence of an *anticipatory effect* of financial hardship independent of experienced hardship supports a two-factor model. Ouwehand et al. (2009) identified that socioeconomic status was influential in deciding the extent to which people engaged in proactive, financial coping strategies. They noted that people with lower socioeconomic status undertook fewer future-orientated activities. As such, Ouwehand et al. (2009) argue that this may be because current financial difficulties drained psychological resources and required more immediate attention. This finding has significant implications as it alludes to an "economic trap", whereby individuals' cognitive resources are consumed day to day whereas those from a higher socioeconomic status may have more psychological capacity to plan for the future and therefore realise long-term financial goals.

Recent research has suggested that the financial impacts on mental health differ depending on the predictor being measured. Kromydas et al., (2021) found that a transition into unemployment was more predictive of mental health than fluctuations of income or exposure to poverty, whereas Kopasker et al., (2018) found that employment insecurity was the strongest predictor of the tested variables. Fear of unemployment has also been found to be a form of economic insecurity which was linked to poorer mental health, particularly for males (Norman et al., 2004).

Kopasker et al., (2018) argued that such sex differences may be a consequence of the traditional roles adopted in a UK society, with males predominantly acting as 'breadwinner' in households. Whether the sex difference is a consequence of household role, another function of society, or biological predisposition, there is evidence that it is somewhat culturally malleable. King et al. (2020) investigated Australian households and found that the burden of being a sole "breadwinner" was associated with poorer mental health in males, with similar results being reported in Spain (Torre et al., 2019). However, Julkunen and Heimonen (2003) found that while in some countries (e.g., Finland and Spain), female financial dependency predicted poor mental health, the results did not manifest in other countries (e.g., Germany). While acting as a "breadwinner" and having responsibility for financial decisions are not the same they do have some equivalence in relation to the overarching concept of financial responsibility and can inform understanding as to whether aforementioned sex differences are a function of household roles.

Present Research

The purpose of this paper was to investigate the effects of a range of financial variables on mental health, both over time and between various cohorts while ensuring that the bidirectionality of the relationship did not unduly affect results. A range of financial variables were selected from the Understanding Society database to test their effects on self-reported mental health. Standardised regression coefficients acted as a determinant of strength of a relationship. The analysis compared the regression coefficients over time and between cohorts based on financial responsibility. Given the concern of correlational approaches underestimating the effect of predictors if they do not account for the bidirectionality of the relationship, this analysis was comparative in nature. Utilising a comparative approach as listed in Cumming (2008) ensured that while underestimation of effect sizes may be present, underestimation would be uniform across various timepoints and between cohorts. Furthermore, the conservative nature of Cumming's analysis ensures that should significant results be found, it can be *stated with confidence that an effect was present.*

It was hypothesised that the effect of future financial situation would diminish over time in comparison to more immediate financial variables. Finally, providing that the data demonstrated that selected variables remained significant, the data was split by their financial responsibility within the household to determine if these subpopulations exhibit different relationships when compared against each other. This analysis is meaningful as previous research has suggested a proclivity for males to feel the effects of financial hardship more than females (Norman et al., 2004; Kospasker et al, 2018). The purpose of this analysis is to determine if sex differences are potentially a role of societal function, i.e., breadwinner roles.

This results in a series of sequential hypotheses listed below.

- Financial variables will exhibit a statistically significant relationship with mental health at wave 12 of the Understanding Society database.
- That the effect of perceived future financial position will diminish in relation to the more immediate financial variables over time.
- That the effects of financial decision-making will be mitigated if households which live in couples, share financial decision-making responsibility

Materials and Methods

Participants and Sampling Procedure

The analysis utilised the respondents of the Understanding Society Database as its sample. This data is available for under license download from the UK Data Service website (https://ukdataservice.ac.uk/) under the Understanding Society heading. Ethics was granted by the Institutional Ethics Committee. This dataset is described as the largest panel study in the world and collects a wide range of variables from a representative sample of the UK population. Data is collected annually and is counterbalanced to mitigate the effect of time of collection on responses.

Understanding Society is collected annually, referred to as waves within the user guide. While regression models will be run at every wave, comparative analysis was conducted between the first and most recent wave in order to allow maximum time for any temporal effect to manifest. While Oskrochi's (2018) paper only investigated individuals who were identified as head of the household, the addition of a new variable (who is the financial decision maker in the household) was included in the analysis to test if being responsible for the household finances was indicative of differing effects of money on mental health. Understanding Society has a potential sample of 150,393 participants across all waves, however due to attrition, response rates and eligibility criteria, considerably smaller numbers were tested in each analysis. The exact figures are given below.

A sample of 50994 participants were sampled for the wave 1 analysis and 29270 were sampled in the last wave. Missing data was handled listwise, however in follow up analyses, investigating the effect of financial responsibility, only those participants who were eligible, and willing to answer the financial responsibility question were included in the analysis, a total of 18196 participants being included in the final analysis comparing financial responsibility within the household.

Measures

Control Variable

Sex was retrieved for participants and was included as a control variable in the last stage of analysis. Sex was coded and dichotomous (i.e., 1 = Male, 2 = Female). Participants who did not report their sex were considered missing.

Predictor Variables

Job satisfaction

This variable was a single item question which asked participants to state how satisfied they were with their current job. The variable was scored from 1 (totally dissatisfied) to 7 (completely satisfied). Data was treated as continuous. Unemployed, retired and any other participants for whom this variable was inappropriate were treated as missing data for the purposes of the analysis.

Perceived Future Financial Situation (Future)

This variable was a single item question which asked participants to consider how they thought their financial situation would change annually. The wording of the question was as follows "*Looking ahead, how do you think you will be financially a year from now, will you be...*" There was the option to provide one of three responses: better off, worse off or about the same. Responses were recoded with better off being assigned 1 and worse off 3. Data was treated as continuous. This is consistent with other studies which have treated the value as continuous (Oskrochi, 2018 & Smyth, 2020)

Perceived Financial Situation (Current)

This variable was a single item question where participants were asked "*How well would you say you yourself are managing financially these days?*". Responses were scored between 1 (living comfortably) and 5 (finding it very difficult). Data was treated as continuous for the purposes of the analysis. All participants regardless of previous responses were asked this question. This is consistent with other studies which have treated the value as continuous (Oskrochi 2018 & Smyth,2020)

Total monthly income – gross/labour

Objective measures of income, I.e., those directly linked to the amount of money available to an individual were tested using two variables included in the database. These variables were total gross income, which represents the total money available to an individual through all sources (labour, investments, benefits, gifts etc) and total labour income. This variable consists of the total money gained through labour I.e., one's employment. The two variables were included as previous studies (Oskrochi et al., 2018) have included both to differentiate earning power from total available financial resources. Values are continuous and can be positive or negative in some circumstances.

Comparison variables

Financial responsibility

This variable asks participants if they are the primary decision maker in financial decisions for the household. The possible responses were that the respondent was the primary financial decision maker, their partner was, or that they shared responsibility. For the purposes of the report these were termed "respondent", "partner" or "both have equal say". Most participants stated that they were jointly responsible for decision making, the large sample allowed for splitting the data on this variable and retaining sufficent statistical power for the groups.

Time

Data collection for the waves of Understanding Society are conducted on a yearly basis with participants being contacted within the calendar year. The first wave of data collection occurred from February 2009- December 2009, with subsequent waves being collected on a January to December basis. Data collection schedules are counterbalanced to ensure that a representative block of the UK population is collected within each month and to mitigate the effects of the yearly cycle on responses.

Outcome Variable

GHQ-12 (Goldberg & Williams, 1988)

The GHQ-12 (Goldberg & Williams, 1988) consists of a 12-item refinement of the original 144 version of the scale. Items are scored on a 5-point Likert scale with high scores indicating a higher level of psychological distress. Despite the reduction in items the GHQ-12 is claimed to be the most commonly used scale to measure mental

health worldwide (El-Metwally, 2018) due to it striking a balance between being short and retaining similar internal consistency and reliability to longer versions of the scale (Winefield et al., 1989) and Boey & Chui (2008) demonstrated that the scale exhibited acceptable levels of sensitivity and specificity when compared with other tests.

Analytic Strategy

The first stage of the analysis consisted of a multiple regression of the range of financial predictors on mental health at the most recent wave of data collection (wave 12). Following this an analysis of the same variables within the first wave of data collection was conducted and the variance of the standardised beta between waves reported. All variables which displayed statistically significant relationships at both timepoints were subject to a comparative analysis across time. This was done graphically by plotting regression coefficients across time and statistical significance was be tested using the technique described in the paragraph below. Finally, the wave 12 file was be split based on participants who were eligible to respond to a question based on financial responsibility, with the regression results of those who either responded as being the sole financial decision maker, leaving financial decisions to their spouse or partner, or made financial decisions as a couple, reported separately. In order to test the effect of financial responsibility independent of sex, sex was included as a control variable and r^2 change between models which include only this variable are presented in the Results section.

To test the hypothesis that one set of standardised regression coefficients was statistically significantly different to each other, their corresponding 95% confidence intervals were estimated using bias corrected bootstrap (100 re-samples). As per guidelines given in Cumming (2009), intervals which overlapped by less than 50% can be considered as statistically significantly different at α .05.

Results

Descriptive Statistics

Table 1 details the scalar variables in the dataset, however there were also several categorical variables which were included. Qualifications were relatively evenly divided between having attained a qualification at school level (33.7%) and at university or higher education (36.5%) with respondents reporting no qualifications representing (17.2%) of the sample. Of those who were eligible for the question, i.e., those living as a couple, household financial decisions were predominantly made by both members of a household (82.6) with relatively equal proportions of the household reporting that they (8.5%) or their partner or spouse (8.3%) made most financial decisions relating to the household.

Table 1: ***Descriptive Statistics for Variables Included in the Analysis***

	N	Mean	Std. Deviation
Age	29267	50.65	18.72
Subjective financial situation - current	28875	2.01	.90
Subjective financial situation - future	28573	1.93	.58
total monthly personal income gross	29267	1979.02	1735.85
total monthly labour income gross	29266	1281.47	1735.11
Job satisfaction	15867	5.46	1.29
Subjective wellbeing (GHQ): Likert	28426	11.91	5.79

Assumption Testing

Correlations over 0.9 can be said to indicate multicollinearity and no variable in the dataset exhibited correlations this high except for total income and labour income. Given the interconnectedness of these two variables, this was not unexpected, and a decision was taken to retain them as the small variance between them can be directly attributed to having earnt money through labour. The correlation table is given in supplementary material.

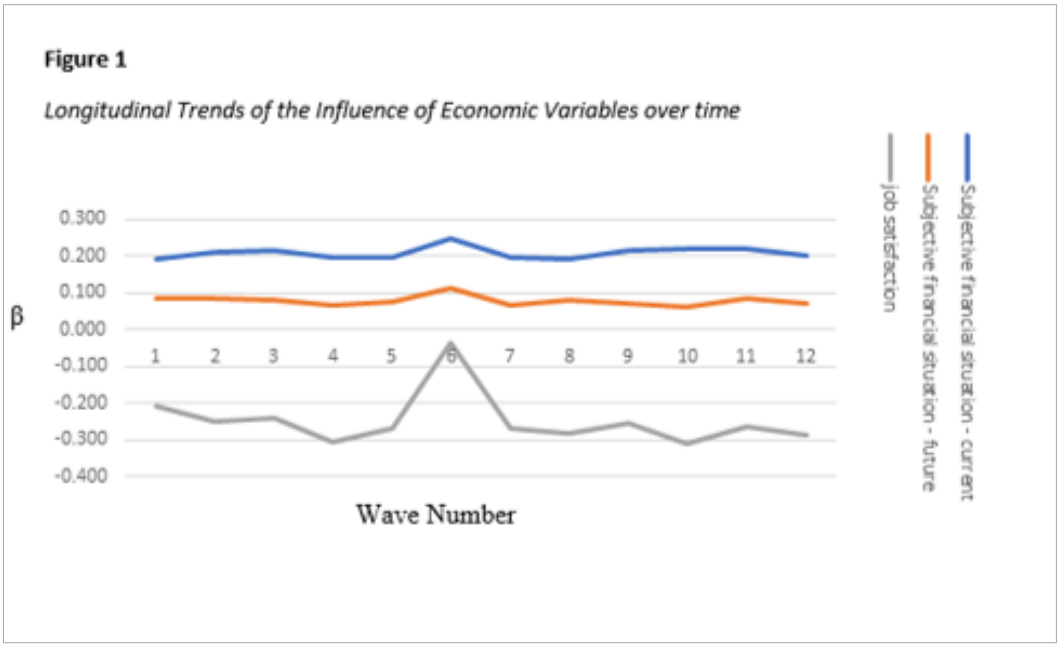
A Durbin-Watson statistic was calculated to assess the assumption that the values of the residuals were independent, and it suggested that this assumption was not violated (value = 1.965). The values of residuals indicated a normal distribution which meant that assumption has not been violated. A scatterplot was created to assess whether the assumption that the variance of residuals was constant (homoscedasticity), the violation of this assumption was not indicated. Further, a P-P plot demonstrated a normal distribution of the values of residuals, thus indicating the assumption was met. The Cook's Distance values indicated that all values were below 1, thus suggesting that there were no influential cases that biased the model.

Wave 12 analysis

The model, with the variables mentioned in the methods section, i.e., job satisfaction, subjective future/current financial state and gross/labour income accounted for 15.8% of the variance in the data (F [5,15477] =583.856 p <.001). The predictors relating to objective measures of wealth, i.e., gross income (p= .905) and labour (p =.756) income were not shown to be significant predictors of mental health and were therefore not taken forward into the next stage of analysis

Comparison of waves 1 and 12

The graph (see Figure 1) showed that subjective current financial situation and job satisfaction (which was reverse scored) exhibited the strongest influence on mental health over time. Overall all variables exhibited relatively stable trajectories over time, however, there was a small and consistent divergence between financial situation current and financial situation future.



After variables which were shown not to be statistically significant at wave 12 were removed, the regression analysis was found to account for more variance in wave 12 (r^2=.159) than in wave 1 (r^2=.115) however both wave 1 (F [3,22160] =960.863, p <.001) and 12 (F[3,15477]=974.994, p <.001), the ANOVA showed a statistically significant model.

Table 2: A Multiple Regression of Financial Variables in waves 1 and 12 of Understanding Society

	Wave 12				Wave 1
Variable	**β**	***t***	***p***	**Beta variance**	**Sig**
Subjective Financial situation – Current	.221	30.547	<.001	.012*	<0.001
Subjective Financial situation – Future	.088	12.366	<.001	-.012*	<0.001
Job satisfaction	-.265	-36.548	<.001	-.079*	<0.001
Labour Income	-.006	-.310	.756	N/A	N/A
Gross Income	.002	.119	.905	N/A	N/A

*Note. Variables marked with a * were shown to be statistically significantly different according to the method described in the analysis section.*

Table 2, all financial variables were found to display statistically significant relationships with GHQ-12 scores. At wave 12 job satisfaction was the greatest predictor of GHQ-12 scores, with individuals who reported higher levels of job satisfaction, reporting lower levels of psychological distress. The subjective financial variables both exhibited statistically significant relationships at both timepoints however it must be noted that the effect of perceived financial situation in the future diminished in predictive power, while the effect of current financial situation increased. These differences were found to be statistically significant using the method mentioned in *Methods*.

The effect of financial responsibility

The regression models, when the sample was split by financial responsibility accounted for similar variance however for participants who noted that they were the financial decision maker (r^2 =.178) or had equal say (r^2=.170) captured slightly less variance than those who reported that their partner or spouse made financial decisions (r^2=.182). All of these models represent statistically significant improvements relative to models with the control variables alone (p<.001). Participants who responded that their partner was the financial decision maker experienced the largest change in variance captured in the model (ΔR^2=.182) whereas couples who shared financial decision making experienced the smallest change (ΔR^2 =.170).

Interestingly participants who reported that someone other than the listed above options had a much lower variance captured in the model (r^2=.083), The authors concluded however that the participants who reported the primary decision maker as "other" could constitute several different scenarios, ranging from living in sheltered accommodation, still living with parents, living under conservatorship orders and that these were not homogenous. Due to these conceptual difficulties in interpreting results, they were not reported. All ANOVA analyses suggested that the model statistically significantly predicted the outcome variable.

Table 3: *Differences in Regression Coefficient by Cohort*

	Both have equal say			Respondent		Partner	
Variable	**β**	***t***	***p***	**β**	**β variance**	**β**	**β Variance**
Sex	.123	12.531	<.001	.165	-.042	-.269	-.012
Subjective Financial situation – Current	.164	16.324	<.001	.180	-.016	.135	-.074*
Subjective Financial situation – Future	.071	7.220	<.001	.066	.005	.238	-.032
Job satisfaction	-.307	-30.484	<.001	-.273	-.034	.104	-.038

*Note. Variables marked with * displayed statistically significant differences in the beta coefficient relative to the "both have equal say" cohort*

As shown in table 3, only one significant difference in regression coefficient between was apparent. Current financial situation significantly dropped in influence when comparing shared decision makers and those whose partners made financial decisions. There was a general, albeit non-significant decrease in the effects of all variables in mental health in participants who reported that their partner was a decision maker relative to all other groups.

Discussion

The present research investigated the changing relationship between money and mental health over time in the UK population. Findings were broadly consistent with Oskrochi's (2018) paper with similar predictors being identified as significant. Consistently, objective measures such as total income and labour income were not meaningful predictors of mental health, whereas subjective financial situation, both present and future, were. As stated in Oskrochi (2018) this is likely since so called "soft factors" such as social comparison and savings are masked by absolute figures but may be captured by subjective evaluations of participants financial situation.

Effect of time

Data was collected during 2009 (wave 1) and 2021 (wave 12). Both time points come in the wake of significant economic events, with the economic downturn occurring in 2008 and the Covid-19 Pandemic starting in December 2019. While the final two values were the only ones subject to statistical analysis, trends across time were visually inspected to identify the linearity of the trends. This does suggest that the effect is present despite the specific economic situations present at waves 1 and 12.

Furthermore, the second hypothesis of perceived future financial situation diminishing in relation to the more immediate financial variables overtime was supported. The results indicated that there was a general trend of the reduction of predictive power of subjective future financial situation. Furthermore, there was a trend to more immediate indications of financial standing such as current job satisfaction and perceived current financial situation. Absolute measures such as total income remained non-significant at wave 12. While potentially the results could be interpreted as increased *resilience*, or even despondency to the influence of changes of perceived financial situation, the authors consider that the explanation in Ouwehand et al. (2009) whereby individuals' cognitive resources are depleted in day-to-day activities represent a more plausible interpretation of the data.

Job satisfaction was also found to have an increased influence over one's mental health and this is somewhat unsurprising. Job satisfaction represents a variable which captures several facets which may influence satisfaction. Security is one of those factors and it is arguably likely that individuals who feel secure in their job will respond more positively to that question. It should be noted that longitudinal research has suggested that job satisfaction is a significant predictor of mental health trajectories over time within the UK population (Smyth, 2020). However, the increased influence of this variable over time may be attributable to the effect economic uncertainty has on the establishment of social identity (Godinić, & Obrenovic, 2020) and increased economic uncertainty has been linked with suicide in England and Wales (Vandoros, 2019).

Effect of Financial Responsibility

It is interesting to note that generally the effect of financial responsibility was small, with only one statistically significant differences being identified once the analysis was controlled for the effect of sex differences. It was anticipated since research identified that individuals with the sole responsibility for a household's earning potential, so called "breadwinners" were placed under increased mental pressure (King et al., 2020; Torre et al., 2019), that they may feel the effects of changing financial variables more keenly. Variables such as 'the fear of unemployment' have been found to be significant predictors of mental health in men and Kospasker et al. (2018) argued that this may be due to the role of breadwinner within a household and could have also been due to the traditional financial responsibilities being set on males in the UK households. Importantly, the decision to include sex as a control variable was done to disentangle sex effects from societal roles. While it must be noted that descriptive statistics did suggest that those who delegated financial decisions to their partners did report higher levels of psychological distress, the purpose of this analysis was to determine the predictive effects of financial variables. This suggested that the UK exhibited similar findings to Germany in Julkunen and Heimonen's (2003) investigation of financial dependency and mental health. In conclusion it can be said that this research suggests that the sex differences identified in the literature can be attributable to something other than financial responsibility. Alternatively, it may suggest that people have become acclimatised to the differences in circumstances regarding job security as per the Hedonic Treadmill theory (Brickman & Campbell, 1971).

Limitations

The research is inherently limited by the fact that data was obtained through a secondary data source. As a result, the variables selected were chosen based on what data was available rather than what was optimal to measure or address the hypotheses specifically. The single item scales used to represent job predictor variables would have been substituted for validated questionnaire measures if the data permitted. For example, the Generic Job Satisfaction Scale (MacDonald and McIntyre, 2008) and the Perceived Financial Wellbeing Scale (Netemeyer, 2018) It must also be noted that serious consideration was given as to when would be an appropriate timepoint from which to measure against. While it was felt that 2009 and 2021 were somewhat comparable as they were in the wake of a major economic event, the authors do concede that it is not possible to fully account for the differences of a pandemic and an economic recession.

Areas for future research

The research has suggested that individuals are becoming less future focused in relation to how this influences their mental health. It may be beneficial for qualitative researchers to investigate this phenomena through the use of data collection techniques which may be more suited to investigating the intrinsic motivations for this occurrence. Furthermore, the findings when compared against cross cultural studies (Julkunen & Heimonen, 2003) suggests that the UK is more similar to Germany that it is to Spain and Norway. Further research investigating what drives these differences may be beneficial to help determine the cause of these cultural differences.

Conclusion

In this paper, it was concluded that while the magnitude of differences was small, that the findings suggested that over the last 12 years, the effect that one's perception of their financial situation in the future steadily diminished in its influence over mental health. This finding has important implications for several stakeholders within the UK population including policy makers, and employers. It may also provide problems for the economies of countries in the

future as individuals who are living longer may not be so inclined to invest in the future. While it is somewhat of a benefit to the population that a fear of future financial situation may not be a major driver of mental health, it may also indicate that individuals are overly focused on maintaining day to day expenses and as such may not be orientated towards future endeavours which will not yield benefits immediately. This paper also demonstrated that sex differences identified in other papers is likely not solely attributable to the roles that males predominantly assume within a household.

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Informed Consent

All data is collected by a third party. For more information as to how informed consent is gained please see below (https://www.understandingsociety.ac.uk/documentation/mainstage/consents)

Trial registration number/date

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Ethical statement

This study was approved by Coventry University Ethics Board (P165516) on 16th October 2023

Conflict of Interest Statement

The authors have no conflicts of interest to declare

Data Availability Statement

This data is available for download under license from the UK Data service (https://ukdataservice.ac.uk/)

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