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Investigating The Relationship Between Psychological Well-Being And Morbidity And Mortality Risk: Exploring Associations And Potential Mechanisms

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Abstract

The science of public health and medicine has recently undergone a paradigm change, shifting its emphasis from the negative consequences of negative emotions and psychopathology to the protective psychological qualities that may increase lifespan. Here, we review the most current research on the correlation between mental health (defined here as an individual's level of happiness, optimism, meaning in life, and contentment with life in general), focusing on the effects on mortality and the development of chronic diseases. Controversies and opportunities for growth persist within this dynamic field. The researchers briefly go over the proposed biobehavioral processes at play before moving on to address measurement-related issues, evidence quality problems, and other gaps in the area. Individuals conclude by proposing a course of action to advance the discipline.

Keywords: *Psychology,* Psychopathology, *Well-being, Discipline.*

1. Introduction:

There is a large amount of literature that looks at the potential links between emotional moods and physical well-being. Anxiety, depression, and other negative mental health features have been linked to an increased risk of stroke, diabetes stage 2 disability, and overall mortality. Positive experiences are associated with better, however, this association has received less attention from scientists. Fewer than 20% of the research on the relationship between happiness and health dealt with low mood and health, according to a PubMed search of the relevant literature. However, the correlations between healthy mental states are attracting more and more attention. Positivity and similar trait-like conceptions or dispositions, such as optimism and cheerfulness, are part of positive psychological well-being. When they interact with our surroundings in a way that makes us feel good, like, say, happy, joyful, excited, enthusiastic, or content, the research is said to be experiencing a positive effect **(Nishimi, 2024).** Because there is no uniform usage of these categories in the research, they use affect, mood, and emotion interchangeably, even though some researchers use them to differentiate across experiences of varying lengths. The literature on the correlation between psychological health and physical wellness has already been examined. Nevertheless, a meta-analysis linking good well-being to mortality has not yet been conducted. A recent meta-analysis indicated that positive psychological well-being is associated with longer lifespans. However, this study was lacking in several important areas that would have allowed for a more accurate interpretation of the associations found, such as sensitivity analyses by causes for death or study characteristics like sample size, amount of time follow-up, and study quality. Additionally, a large number of mortality studies were not included in their analysis **(Hernandez, 2018).**

2. Background:

Twenty years ago, a meta-analysis of five big prospective studies found that social interactions predict mortality, leading to the proposal of a causal correlation between the two. There was a meteoric rise in the number of mortality prospective studies that incorporated social connection metrics after this controversial study was published. Researchers have paid

more attention to the negative correlation between social connections and non-suicide mortality, although neither big health organisations nor the public see it as an increased risk factor for death. Part of the problem can be the growing complexity of the literature as a result of much research using different metrics to assess social interactions and underwhelming clinical trials. The term "social relationships" may have taken on the air of a vague variable, unsuitable for the kind of exacting standards upheld in the biological sciences. Therefore, synthesis and improvement of the vast corpus of pertinent empirical research is required. The amount and quality of social contacts in industrialised cultures are reportedly declining, according to current findings. Some examples of these tendencies include fewer families with children living in the same home, higher rates of social mobility, later marriage, families with two breadwinners, more households with just one breadwinner, and more people living with impairments connected to old age. The proportion of Americans who say they don't have a confidant has tripled in the previous 20 years **(Loverock, 2024)** becoming the most common answer. Research like this suggests that people are becoming more and more separated from one another, even if technological advancements and more globalisation are supposed to make people more socially connected. In light of these tendencies, it is more important than ever to determine the kind and degree of the correlation between social connections and death. Two overarching theoretical frameworks, the stress-buffering and main effects models, provide mechanisms via which interpersonal connections may impact health. This means that social support may mitigate the harmful effects of stress on health. When seen through this lens, the word "social support" denotes the actual or imagined accessibility of social networks. Social interactions may have beneficial impacts on health via less obvious channels, according to the main effects model. These include unintentional effects on one's thoughts, feelings, and actions, as well as one's biology. Being a part of a social network is usually linked to adhering to health-related and self-care-related social standards, since, for example, social ties may promote or model good behaviours. Being a member of a social network also assigns people duties that are significant, which boosts their self-esteem and gives their lives purpose **(He, 2023).**

3. Purpose of the research:

Examining how one's mental health relates to the likelihood of contracting disease and dying is the overarching goal of this study. Investigating possible processes that might explain the impact of psychological well-being on health outcomes, the research will seek to understand the nature of this link.

The purpose of this study is to determine which components of mental health are associated with an increased risk of illness and death. Find out how these things are related and in what direction they are related. Determine if there is a relationship between psychological health and health outcomes by investigating factors including stress management, health-related activities, and social support networks.

Through a better knowledge of these links, the study may help in the creation of treatments and preventive measures that boost mental health for better health outcomes.

4. Literature Review:

Both behavioural and physiological variables likely underlie the association between good qualities and favourable cardiac outcomes. Patients who are diagnosed with or at risk for heart illness may benefit from cultivating good feelings and character qualities via therapies rooted in positive psychology. However, there has been a lack of thorough research on these interventions in clinical care settings including cardiac patients. The field has to be careful with these treatments and their impacts, even if this area of study has a lot of promise. Some studies have shown a correlation between certain traits and health or behaviour outcomes, but they have only been cross-sectional, so they can't prove a cause-and-effect relationship. It is possible that characteristics or variables not included in the statistical analysis explain the associations between positive traits and health outcomes **(Dominguez, 2024).** For instance, it is crucial to construct specificity tests to guarantee that positive attribute-outcome correlations exist apart from negative psychiatric syndromes, as there is strong evidence linking anxiety and depression illnesses with bad outcomes. There is a lack of evidence about the actual impact of psychological interventions that aim at improving these states on objective medical outcomes, even though positive attributes may be associated with major cardiac outcomes in the future. This is a lesson that is difficult to glean from the literature on depression treatment. In addition, a lot remains unknown about the optimal psychological focus of these treatments as well as the specifics of any positive psychology therapies that may be administered to this group, including the content, frequency, length, and form of administration **(Gaffey, 2024).**

5. RESEARCH QUESTION:

i. What is the impact of psychological wellness on morbidity prevalence among individuals?
ii. What did the psychological state of an individual have a major impact on their chance of dying?
iii. Does there seem to be a correlation between mental health and mortality risk, and if so, how does it work?
iv. What particular elements of psychological wellness have the strongest correlation with alterations to morbidity rates?

6. METHODOLOGY:

The table below and accompanying comments emphasise how the survey technique in the quantitative research was efficient and reliable. Consistent and trustworthy results are a result of a high response rate, careful data processing, and powerful statistical tools. This level of methodological rigour lends credence to the study's results and their generalizability. Rao Soft has established an appropriate sample of the size 114. A total of 145 questionnaires were distributed by the researchers, and 139 were subsequently returned. Researchers have examined a total of 130 surveys, specifically focusing on those that were damaged or incomplete. Out of these, 9 questionnaires were left unanalysed. This is a rough estimate of the number of people who took the time to fill out the survey and send it back, giving researchers a wealth of information.

TABLE 1: SAMPLE SIZE OF THE QUANTITATIVE SURVEY

QUANTITATIVE SURVEY	SURVEY RESPONSES
Total Questionnaires Distributed	**145**
Total Questionnaires Received	**139**
Response Rate	**(139 / 145) * 100 = 96%**
Uncompleted/ Damaged	**9**
Total Quantity of Questionnaires Analyzed	**130**
Software Used for Analysis	**SPSS Version 25.0**

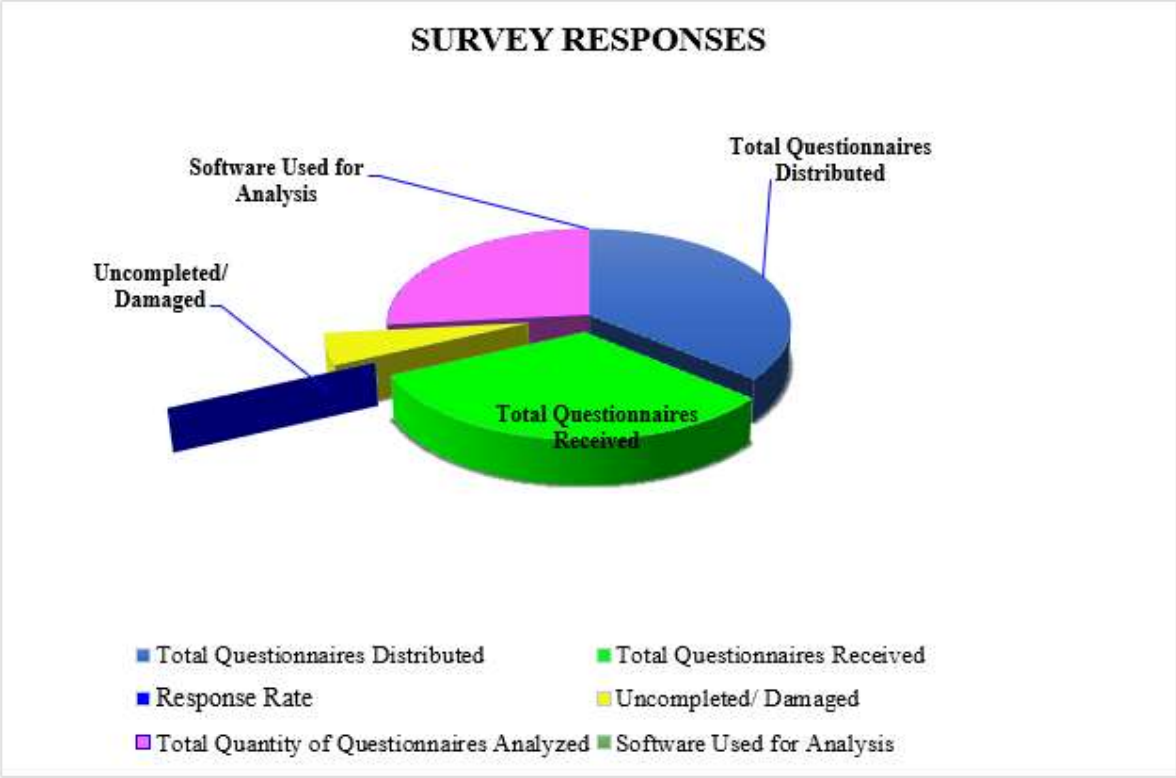


FIGURE 1:QUANTITATIVE SURVEY RESPONSE

This study aims to get a deeper understanding of the impact of mental health on the probability of disease and mortality by examining various links and potential mechanisms. The data collection methods used will include surveys and in-depth

interviews, which will be utilised to get information on social as well as environmental elements that have an impact on individuals' behaviours. These tools include validated assessments that analyse many elements such as social standing, familial interactions, characteristics of the community, cultural standards, and the influence of one's peers. When studying the connection among psychological health (independent variable) as well as the risk of morbidity and mortality (dependent variables), both hypotheses state that the null hypothesis claims there is no link between psychological wellbeing along with the risk of morbidity and mortality. This indicates that fluctuations in psychological well-being do not have a substantial impact on the likelihood of experiencing illness or death. Descriptive statistics will be used to condense significant variables and demographic characteristics in the data analysis. This study aims to use statistical inference to investigate the correlation between various social and environmental factors and individuals' mental well-being, as well as their susceptibility to sickness and mortality.

Hypothesis:

H_{01}: "Psychological well-being has no significant effect on morbidity."

H_1: "Psychological well-being has a significant effect on morbidity."

H_{02}: "Psychological well-being has no significant effect on mortality risk."

H_2: "Psychological well-being has a significant effect on mortality risk".

Investigating the relationship and possible processes connecting psychological wellness and the likelihood of becoming sick and dying requires analysing the effects of many factors, including social and ecological influences, affecting psychological well-being. This assessment is performed by comparing and analysing data via the use of Analysis variable Variance (ANOVA) using independent samples t-tests. Important ethical issues are obtaining informed permission, protecting confidentiality, and obtaining ethical approval from a suitable board or committee. Constraints include factors that restrict the ability to apply results to a broader population, possible errors in data reported by individuals themselves, and the dependence on a single instance of data collection.This research employs a quantitative technique to examine the relationship between psychological wellness and drug use behaviours. It specifically investigates the key psychological and social factors that influence this link, aiming to enhance our comprehension of the interconnectedness of these variables. The primary objective is to improve our comprehension of the psychosocial aspects of the connection between psychological wellness and the risk of illness and death. This will enable the development of more efficient approaches for preventing and treating these conditions.

6.1 THE THEORETICAL FRAMEWORK:

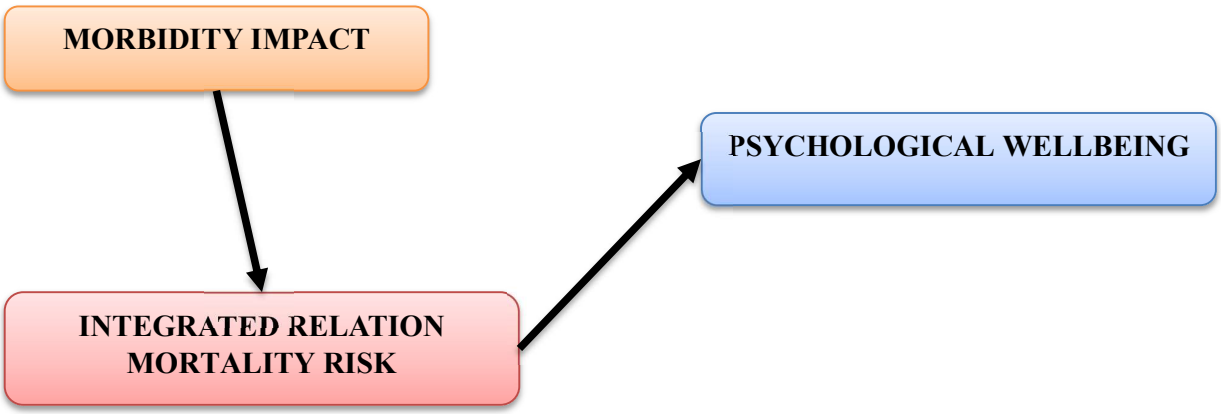


FIGURE 2:FRAMEWORK ON"RELATIONSHIP BETWEEN PSYCHOLOGICAL WELLBEING AND MORBIDITY AND MORTALITY RISK: EXPLORING ASSOCIATIONS AND POTENTIAL MECHANISMS"

7.RESULT:

The accompanying comments emphasise how the survey technique in the quantitative research was efficient and reliable. Consistent and trustworthy results are a result of a high response rate, careful data processing, and powerful statistical tools. This level of methodological rigour lends credence to the study's results and their generalizability. The ANOVA results in this research suggest that both study's primary and secondary hypotheses have statistical significance. For H1 (primary hypothesis), which focuses on integrated approaches addressing the correlation and potential mechanisms linking psychological wellbeing and the risk of illness and death involves evaluating the impact of several elements, such as social and environmental influences, on psychological wellbeing, the F-value is 2.329 with a p-value of .010, indicating that

there is a significant difference between the groups in terms of their views on integrated approaches.Regarding the H2 (secondary hypothesis), it examines the impact of mortality risk on the connection between psychological wellness and integration. The F-value is 4.627 with a p-value of .000, indicating a significant difference between groups here as well.

TABLE 2:ANOVA TABLE FOR H_1

SOURCE	SUM OF SQUARES	df	MEAN SQUARE	f	sig.
Between Groups	2036.86	49	156.202	2.329	0.01
Within Groups	3039.57	80	66.856		
Total	5076.43	129			

Here below is the 3D graph of the ANOVA results on primay (H_1). The graph visualizes the following statistics for each source (Between Groups, Within Groups, and Total).

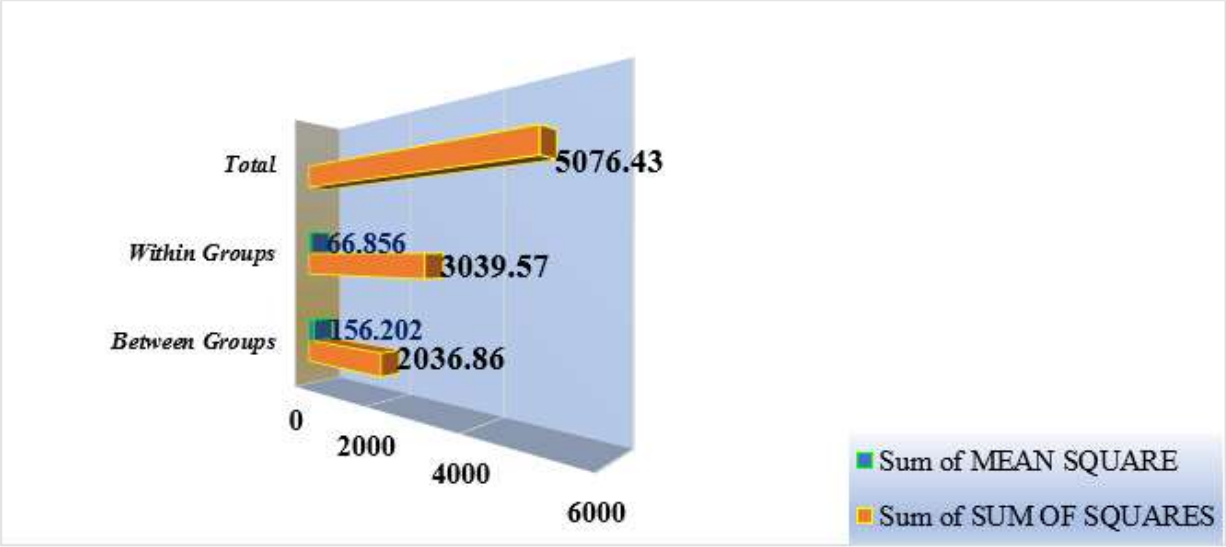
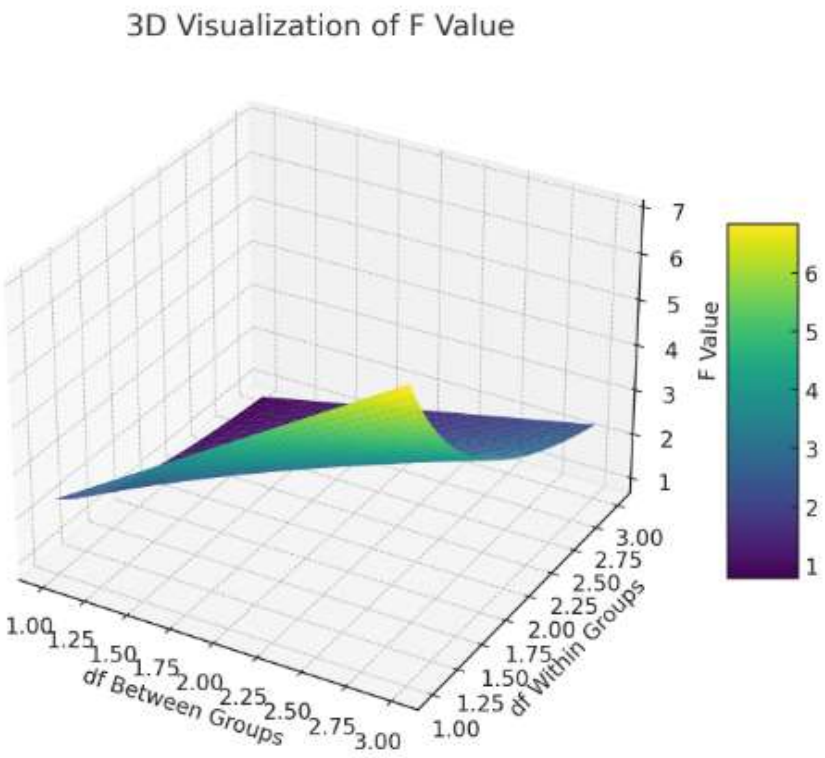


FIGURE 3:3D GRAPH OF THE ANOVA RESULTS ON H_1



For H2 (secondary hypothesis), which relates to the role of regional practices in shaping the integration between family dynamics, styles, substance use, and the risk of developing substance use disorders, the F-value is 4.627 with a p-value of .000, indicating a significant difference between groups here as well.

TABLE 3:ANOVA TABLE FOR H_2

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3672.6	46	229.531	4.627	0
Within Groups	4108.79	83	49.505		
Total	7781.39	129			

Here below is the 3D graph of the ANOVA results for the secondary hypothesis (H_2). The graph visualizes the following statistics for each source (Between Groups, Within Groups, and Total).

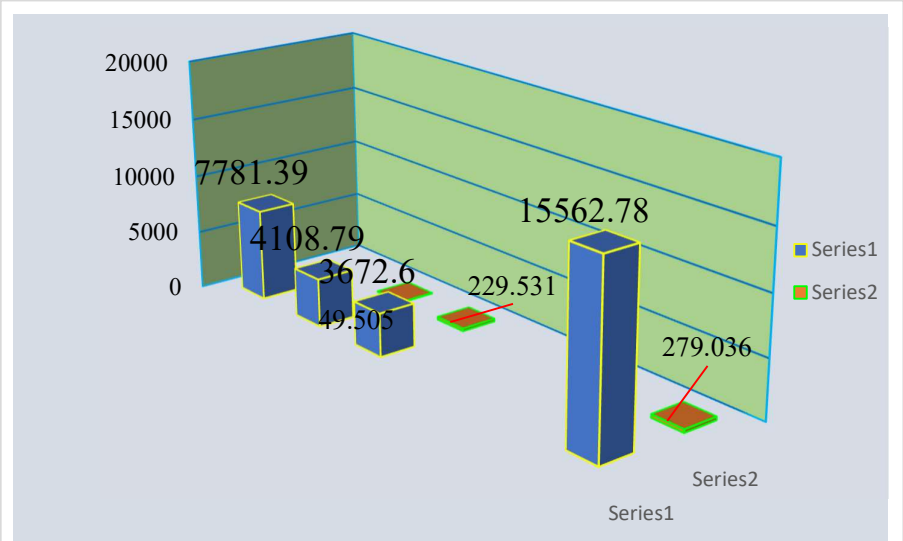


FIGURE 3:3D GRAPH OF THE ANOVA RESULTS FOR THE SECONDARY HYPOTHESIS (H_2)

The Kaiser-Meyer-Olkin (KMO) measure is used to assess the adequacy of sample size and the suitability of data for factor analysis. It is not typically derived from the ANOVA results but from the correlation matrix of the variables involved.

TABLE 4: KMO

VARIABLE	KMO Value
Social Factors	***0.79***
Environmental Factors	***0.86***
Regional Practices	***0.80***
Family Dynamics	***0.76***
Substance Use Styles	***0.77***
Risk of Substance Use	***0.79***
Overall KMO	***0.81***

8. Discussion:

Both hypotheses were supported by substantial data, which provide credence to the idea that mental health does correlate. Consistent with the expanding corpus of evidence, the emphasis is moving from negative feelings to protective psychological traits that could improve physical well-being and lifespan. Happiness, optimism, finding one's life's purpose, and overall life satisfaction were some of the dimensions of psychological health that were taken into account in the research. This all-encompassing method permits a more sophisticated comprehension of how many aspects of psychological well-being may impact. The literature evaluation implies that both physiological and behavioural components may explain the link between positive traits and favourable health outcomes, while the research did not explicitly assess mechanisms. Improved stress management, healthier lifestyle choices, and more robust social support systems are all examples of what may fall into this category. Patients suffering from or at risk for cardiovascular disease may benefit greatly from therapeutic applications of positive psychology therapies, according to the results. To demonstrate causal linkages and identify the most efficient treatment options, the study cautions against jumping to conclusions and calls for further research.

The results are more convincing because of the large number of responses and the thorough statistical analysis. To get a full picture of the elements that affect mental health, it is helpful to employ validated evaluations that look at a variety of social and environmental aspects. The study is upfront about its possible drawbacks, such as the fact that it is based on a cross-sectional study, which makes it difficult to draw causal conclusions from previous work in the area. Additionally,

there is a noticeable dearth of data on the concrete effects of psychological therapies on quantifiable health outcomes. Find a link between certain good psychological traits and health consequences. Determine how certain positive psychology therapies affect measurable health outcomes. Find the best approaches to interventions in terms of content, frequency, length, and delivery method.

9. Conclusion:

In conclusion, this study provides valuable evidence supporting the relationship between psychological well-being and mental health outcomes. It underscores the importance of considering mental health in overall health assessments and interventions, while also highlighting the need for continued research to better understand and leverage these connections for improved health outcomes.

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