

The Relationship between Mental Health and Economic Performance: From Human Capital to Integrated Policy Frameworks

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ABSTRACT

Mental health has become an important factor in the economy, but it has not been well measured before. This paper shows how mental health and economy interact with each other, using human capital theory, behavioral economics and ability method. We now understand that mental health is like a kind of productive capital, which has changed our view: we no longer only consider physical health, but also include prevention, action at work and economic calculation. Digital tools-such as machine learning for early detection of problems, mobile applications for helping many people, and economic models using mental health indicators-help us to better measure and invest. Specific examples of work productivity planning, disease cost research and policy evaluation show good results. But there are still problems: proper measurement, stigma related to disease, unequal opportunities for everyone and lack of funds in the short term. Looking ahead, we are considering setting up a special account for mental health, investing in prevention and using digital tools in an ethical way. In a word, mental health is an important part of economy, which can improve productivity, growth and fairness, but it must be measured, invested and managed in an inclusive way for a long time.

Keywords: Mental Health; Economic Performance; Human Capital; Productivity; Behavioral Economics; Workplace Intervention; Cost-Benefit Analysis; Macroeconomic Measurement.

1. INTRODUCTION

Mental disorders account for a large part of the world's diseases, causing huge losses to the economy, because they reduce work, improve productivity, increase medical care expenditure, and hinder people's learning and growth. Before 2023, it is estimated that the global economic cost of mental health problems will reach trillions of dollars every year, and anxiety and depression alone will lead to huge losses in work and economic growth^[1]. These costs are not just additional. They are related to health, education and life, and deteriorate with the passage of time and generation after generation.

The old economic model says that health is mainly the strength of physical work. Mental health is a special form of human capital. It has changed how people view people's choices and economic growth. Behavioral economics shows how our thoughts and emotions change the way we make decisions, take risks and invest in the future. In the past, human capital theory only discussed school and physical health, but now it includes psychological resources to explain how much money a person earns and how to invent new things.

The report focuses on the problems and opportunities of how to combine mental health and economy, how to change measurement standards and rules, how to use tools and auxiliary tools, and how to better combine them. It uses the evidence published until 2023 and maintains a good balance between what works and what is still difficult to do.

2. THE THEORETICAL FOUNDATION OF MENTAL HEALTH IN ECONOMIC ANALYSIS

2.1 The Connotation and Characteristics of Mental Health as an Economic Variable

In economic analysis, mental health is regarded as a reserve of psychological resources, including emotional regulation, cognitive function, resilience and social connection, which helps a person to work, study and invest. Different from many physical health problems, mental health often has other problems at the same time, which are closely related to the economic situation and have a great impact on the family and workplace.

The important things are: the dependence of the country (mental health now says a lot about mental health in the future), the adverse impact on productivity (when you start from a low level, a little benefit can bring a lot of benefits), and it is difficult to measure because of shame, prejudice in self-description and cultural differences. These things make the normal human capital model more complicated, but they also provide opportunities for intervention. When we regard mental health as a reckless capital, it will bring huge returns and get returns through investment^[2].

2.2 The Theoretical Logic of Mental Health Influencing Economic Performance

The theory of human capital holds that when you invest in health, people will work better and work longer. If it is applied to mental health, a clear mind can not only help you work longer, but also help you make more efforts, make better decisions, be more creative and cooperate with others better. Behavioral economics adds that mental health has changed

how we look at the future, how to avoid losses and how to think. Therefore, it has changed the way people save, study and take care of their health, which is very important for the long-term economy.

When you look at everyone, people's mental health is very important for economic growth, because it changes the quality of work, new ideas and trust in institutions. A new idea here is that mental health is like "meta-human capital"-the basic resource that makes other forms of human capital more useful. When mental health is not good, the results of education and physical health are less. With the improvement of mental health, we can make better use of what we already have. This multiplier shows that mental health should not be regarded as a small problem, but as something very important to the economy^[3].

3. THE TRANSFORMATION PATH OF ECONOMIC PERFORMANCE MEASUREMENT AND POLICY DRIVEN BY MENTAL HEALTH RECOGNITION

3.1 Transition from Physical to Holistic Human Capital Models

The earliest health economic analysis focused almost exclusively on physical illness and death. Now people realize the importance of mental health, which promotes the expansion of human capital model to include psychological aspects. Special methods include multidimensional ability index and extended human capital accounting using survey mental health data.

Before 2023, national statistical agencies in some rich countries began to test mental health satellite accounts. They no longer only pay attention to the traditional medical care expenditure, but also want to measure the economic value of mental health. This shift means that mental health expenditure is no longer regarded as a pure cost, but an investment that can improve productivity and reduce the demand for social assistance in the future^[4].

3.2 Transition from Reactive Treatment to Preventive Investment

Historically, policies have emphasized treatment after the onset of diseases. Economic evidence shows that early intervention and prevention have a good return on investment and promote the transformation to upstream investment. The specific methods include the mental health promotion plan in the workplace and the social and emotional learning plan in the school, which are evaluated through randomized controlled trials and long-term economic monitoring.

The cost-benefit analysis published by 2023 shows that the prevention plan has achieved good returns, especially for high-risk groups or when it is provided on a large scale through digital platforms. This change makes tax incentives consistent with long-term productivity growth, rather than with short-term financial accounting^[1].

3.3 Transition from Individual to Organizational and Societal Level Interventions

The traditional mental health policy mainly focuses on taking care of people one by one. Economic research shows that it has a great influence on others, workplaces and communities, which urges people to use strategies for groups and everyone. Special tools include, for example, economic models that calculate sickness absence and the status quo related to mental health, and organizational audits of psychosocial work environments.

Major employer plans and national mental health strategies adopted before 2023 increasingly use productivity measurement and return on investment calculation. They no longer focus only on clinical results. A new view is that organizational mental health capital-shared standards, leadership practices and support structures-has a positive impact that individual clinical models cannot capture^[5].

3.4 Transition from Siloed Health Policy to Integrated Economic Strategies

Mental health policy has long been isolated from important economic sectors. But we incorporate it into tax planning, labor market policy and growth strategy more quickly because we see its impact on the economy. The special methods are dynamic stochastic overall equilibrium model and mental health variables, which are helpful to the study of national budget cost.

Some countries will include mental health indicators in their welfare budgets or productivity committees by 2023. This integration has created a loop, and economic policy itself has become a factor to change people's mental health, which has closed the connection in two directions^[2].

4. APPLICATIONS OF MENTAL HEALTH INTERVENTIONS AND MEASUREMENT IN ECONOMIC CONTEXTS

4.1 Application in Workplace Productivity and Absenteeism Reduction

Work plan is one of the most direct ways to use mental health economics. The mental health training and flexible working schedule of managers were tested in several randomized and quasi-experimental studies until 2023 by applying cognitive behavioral therapy or giving it in person. Special technologies include digital mental health platform with usage analysis and wearable devices for monitoring stress (under ethical rules).

Meta-analysis and large-scale employer research show that sick leave is less, expressionism is less, and the return on investment is usually higher than the planned cost of one or two years. The important issues are the selection effect (the program mainly helps those who are already motivated) and the difficulty of continuing after the first enthusiasm ^[6].

4.2 Application in Macroeconomic Modeling and Growth Accounting

Countries and international organizations have incorporated mental health into their global economic models. Special methods include satellite health accounts, group data regression that links people's mental health indicators with GDP growth, and computable general equilibrium models that simulate more therapeutic effects.

Research on the data up to 2023 shows that in some economies, closing the loopholes in the treatment of common mental diseases may increase GDP by several percentage points within ten years, which is mainly due to more people working and higher productivity. These models are sensitive to the idea of general causes and effects ^[3].

4.3 Application in Public Policy and Cost-Benefit Analysis of Mental Health Programs

The government is increasingly using formal economic assessment to formulate mental health policies. Special methods include cost-benefit analysis with quality-adjusted life years (QALYs) or well-being-adjusted life years, and social return of investment framework considering wider economic impact.

The evaluation of expanding psychotherapy and suicide prevention programs published before 2023 usually shows that the net present value is much higher than zero if the increase in productivity and the decrease in social expenditure are included. The challenge of monetizing non-market profits and considering fair weighting results still exists ^[7].

5. CHALLENGES AND PROSPECTS OF INTEGRATING MENTAL HEALTH INTO ECONOMIC PERFORMANCE FRAMEWORKS

5.1 Current Main Challenges

The next challenge is: how to measure? The mental health data provided by people themselves are problematic due to stigma and cultural prejudice. The doctor's diagnosis did not see a very serious problem, but it cost money. It is difficult to know what causes what, because money problems will lead to poor mental health, and poor mental health will lead to money problems. Shame prevents people from asking for help at work and talking about it. Not everyone has the same opportunity to get good treatment, which makes the inequality worse. Finally, the policy and budget cycle is too short, so people do not pay enough attention to the possible benefits in the future ^[4,8].

5.2 Prospects for Future Development Trends

Prospects include the development of standardized mental health satellite accounts to be included in national accounts, so that it can track GDP regularly. The progress of digital phenotype and natural language processing of management data can improve real-time measurement, but they also bring privacy problems that need to be well managed. A preventive paradigm supported by a long-term fiscal framework can shift resources upstream. Community and workplace jointly design interventions to improve utilization and cultural adaptability.

An original idea for the future is the emergence of "mental health adjusted productivity index", which can supplement the traditional labor productivity index, provide a more comprehensive economic performance picture, and guide the psychological basis for investment to achieve sustainable growth.

6. CONCLUSION

The relationship between mental health and economic performance is two-way, cumulative and huge economically. Recognizing that mental health is a form of human capital and meta-capital has changed the way we measure, formulate policies and formulate intervention measures. Digital tools and strict evaluation methods expand the scope of evidence and allow large-scale application of documented results, but it is difficult to measure, shame, unequal access and slow down progress in the short term.

Treating mental health as a basic economic infrastructure, rather than a downstream welfare issue, will greatly improve productivity, fairness and resilience. To realize these benefits, it is necessary to continuously invest in measurement infrastructure, prevention paradigms and governance frameworks, and put the affected communities at the center of design and evaluation. Through this integration, mental health policy not only becomes a moral obligation, but also becomes an efficient part of economic strategy.

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