

# Assessing the Interplay between Education, Employment, and Mental Well-Being in Older Adults in the Philippines

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## ABSTRACT

The recent study investigated how the level of education could impact the relationship between employment status and mental health in older individuals. The research involved 197 participants ranging from 60 to 84 years old, recruited from the Senior Citizen Chapter in Naawan, Misamis Oriental. The selection of participants was done randomly to ensure a diverse representation of the community. By utilizing Analysis of Variance (ANOVA) and multiple regression analysis, the study examined how employment status, educational level and their interaction influence the mental health of the participants. However, no significant correlation was found among these variables. The mental health scores of the participants did not exhibit significant variations based on their employment status or level of education when analyzed individually or collectively. These results provide insights into how socioeconomic aspects relate to mental health in older individuals and suggest that there might be other unexplored factors at play. The absence of conclusive findings demonstrate the necessity for a more comprehensive approach towards understanding what factors impact mental health in the elderly population. It also underscores the significance of studies that promote social interactions and cognitive engagement among older adults.

**Keywords:** Mental well-being, older adults, educational attainment, employment status, Philippines

## INTRODUCTION

Mental health encompasses psychological and social well being an aspect of overall health and quality of life. Stress has an impact, on how individuals manage stress their relationships with others and decision making processes. This highlights its importance across ones lifespan (Kalafatis & Panitsa 2020). Mental well-being transcends the absence of illnesses; it also plays a key role in enabling individuals to find satisfaction in life overcome obstacles and achieve personal and intellectual growth. Therefore understanding the factors that influence mental health is essential for promoting healthier communities and improving overall quality of life.

The influence of employment status on mental health is widely acknowledged as a predictor. According to Jahodas deprivation model employment not only brings financial benefits but also fulfills crucial psychological needs like time management, social interactions, common goals, social status and involvement. On the one hand, being unemployed leads, to a lack of these functions which can result in more negative mental health outcomes compared to those who are employed (Paul et al., 2023).

The model mentioned emphasizes the importance of a positive work environment, in maintaining health and overall wellness. It suggests that losing a job can have an impact on one's state. Additionally, retirement as a change in job status has been shown to affect mental health among retirees as retirees face challenges similar to those of unemployed individuals.

One factor that may influence the association between employment status and mental health is educational level or attainment. Education plays a role in shaping job opportunities. It also has a significant impact on health

outcomes and psychological resilience. Higher levels of education are associated with positive health outcomes possibly due to improved coping mechanisms, social support systems and cognitive abilities that come with higher education (Kalafatis & Panitsa 2020). This suggests that how one's job status affects mental health could vary depending on their level of education with higher education mitigating the negative psychological effects of unemployment or retirement. Therefore, it is essential to explore how educational attainment shapes the association between job status and mental health. This research is vital for developing tailored interventions that could support older individuals with varying employment statuses and educational backgrounds.

The objective of this research is to investigate how different levels of educational attainment influence the mental health outcomes of elderly individuals in relation to their employment status, with a focus on the effects of unemployment and retirement. This study hypothesizes that higher levels of educational attainment serve as a buffer, moderating the negative effects of unemployment and retirement on mental health among older adults. Specifically, it is predicted that elderly individuals with higher education will exhibit better mental health resilience when facing changes in their employment status compared to those with lower educational levels.

This study is based on the stress buffering model of support and human capital theory. According to a study by Solomon, Nikolaev and Shepherd (2021) the stress buffering model suggests that having support can help lessen the effects of stress on mental health. It indicates that individuals with higher education levels appear to have stronger social connections and better cognitive skills which may serve as protective factors against stress related to changes in job status. This model emphasizes how educational attainment can be a protective factor against the effects of unemployment or retirement on mental health.

This research is supported by human capital theory, which highlights the importance of investing in education. These investments are believed to lead to advantages such as career opportunities, higher incomes and increased job satisfaction (Solomon, Nikolaev, & Shepherd, 2021). From this perspective, educational achievements give individuals resources like knowledge, skills and abilities that can help them navigate and adapt to challenges brought about by unemployment or retirement.

The resources individuals possess have the potential not to improve individuals access to knowledge and opportunities that can enhance their mental health and foster a sense of empowerment and self-confidence both of which are essential for building psychological resilience. Educational achievements could therefore impact how employment status relates to mental health by offering effective coping mechanisms, broader social networks and a stronger sense of personal empowerment. Higher level of education appears to equip individuals with interpersonal skills that can assist them in handling the challenges associated with changes in job status. This in turn may help reduce the adverse effects on mental health in the face of challenges. This research aims then to explore the relationship between health, job status, educational achievements and work related stressors using these theoretical frameworks.

A significant body of studies has examined into these associations: between employment status and mental health with emphasis on the impact or employment, unemployment and retirement have on psychological wellness. Singh and colleagues (2023) highlighted how mental health outcomes, for adults in the United States vary depending on their industry of work during the COVID 19. This observation underscores the influence of job status on individuals mental health. While these studies show a relationship between employment status and mental health there remains a gap in research regarding how educational attainment affects this connection. Exploring this gap presents an opportunity to understand how educational accomplishments impact the relationship between job status and mental wellness. Such investigations could offer insights into strategies to mitigate the effects of unemployment or retirement on psychological mental health among older adults.

Existing literature presents differing viewpoints on how educational achievements influence health outcomes, mental health and overall psychological mental health. A study by Harris (2019) investigated the relationship between health, education levels, employment outcomes and pain among individuals with sickle cell disease. The study's results suggest that educational attainment can significantly affect health outcomes and general quality of life. However, they also indicate that the benefits of achievements, on health outcomes may not be consistently experienced across groups. The research conducted by Assari and Bazargan in 2019 discovered a decrease, in how educational achievement affects the health and mental health of individuals who identify as

homosexual, gay or bisexual. This suggests that the impact of education on health may vary based on different sociodemographic factors.

These studies highlight the importance of educational attainment in shaping health outcomes and stress the need for investigation to understand its moderating role in the relationship between occupational status and mental health. The lack of consistent findings on how educational achievement moderates this relationship indicates a gap in current research. Exploring this gap could lead to insights for developing targeted interventions to support individuals with elderly individuals with varying employment situations and educational backgrounds ultimately enhancing mental health and overall quality of life.

Given the identified research gaps regarding how educational attainment may impact the effects of transitioning employment this study holds relevance and importance at present. This research aims to gain an understanding of how employment status, level of education and mental health outcomes are associated by examining the mental health as a complex concept. It indirectly measures mental health by considering factors such like health issues and the use of prescribed medication. In this study, examining educational attainment is predicted to influence levels of mental health, in that people with higher levels of education might have resources that help lessen the negative effects of being unemployed or retired on mental health.

In this study the dependent variable, 'mental well-being' among older adults is measured using various psychological assessments to accurately reflect the mental health status of the population under study. This variable is selected based on extensive research indicating its sensitivity to socio-economic factors such as employment status and educational attainment. This selection is substantiated by findings that demonstrate the sensitivity of mental well-being to socioeconomic factors, including educational attainment and employment status. For instance, Zhang et al. (2018) found that socio-economic status significantly influences mental health outcomes in the elderly by affecting their access to healthcare and social resources

The independent variables, namely 'educational attainment' and 'employment status,' are selected based on their influences on mental health outcomes in geriatric populations. 'Educational attainment' is quantified as the highest level of formal education achieved, a factor associated with cognitive reserve and coping mechanisms. 'Employment status' is classified into employed, unemployed, or retired, with each category having a documented differential impact on mental health through various mechanisms, including social interaction, financial security, and purpose in life. It is linked to cognitive reserves and coping capabilities, crucial for mental health in later life (Zahodne et al., 2015). Employment status, categorized into employed, unemployed, or retired, varies in its impact on mental health through different mechanisms such as social interaction and financial stability. Mirowsky and Ross (2007) highlight how employment offers social and economic benefits that are crucial for mental well-being, while unemployment or retirement can lead to significant mental health declines.

In this study it is hypothesized that the level of education might moderate the relationship between employment status and mental health. This moderating effect is expected to reduce the impacts of unemployment or retirement on psychological mental health. By exploring this moderating factor this study also aims to increase understanding about what can enhance resilience and support mental health during career transition points such as retirement.

The overarching goal is to address gaps in knowledge and potentially offer insights for creating interventions and policies that can benefit individuals considering their employment status and educational backgrounds.

## **Significance**

The current research examines how education levels can impact the relationship between employment status and mental health focusing among older individuals in the Philippines. This study examines how education, employment status and mental health are intercorrelated. Understanding these dynamics can shed light on the role of education in protecting against adverse effects on mental health related to being unemployed or retiring in this specific context and age group. The findings of this study could provide policymakers in the Philippines and Southeast Asia with recommendations based on evidence for creating education and employment policies that prioritize mental health and mental health among the older population. Acknowledging the

aspect of education could lead to increased investments in programs that impart practical skills and emphasize building resilience and promoting mental health in this section of the population. These policies may have an impact, in the Philippines especially given its economic uncertainties and shift towards a knowledge based economy that underscore the importance of continuous learning and adaptability. The results of this study could be valuable for mental health professionals, in the Philippines and across Southeast Asia to deepen their understanding of the associations between employment status and educational achievement and how they impact mental health. This awareness could allow for tailored therapy approaches and support services that take into consideration an individual's work and educational background leading to culturally sensitive mental health care.

By focusing on the Philippines this research offers insights that can contribute significantly to conversations about the relationships among educational attainment employment and mental health. It underscores the importance of considering socio economic factors in health studies and interventions. The study aims to shed light on the challenges and resources associated with levels of educational attainment during career transitions, such as retirement, in the Philippine context. The study's findings may be basis to enhance specific mental health interventions and policies.

## **RESEARCH METHODOLOGY**

This study proposes a hypothesis that educational attainment acts as a moderating variable in the relationship between employment status and mental health among elderly adults. It is hypothesized that higher educational levels may alleviate the negative psychological effects associated with unemployment or retirement. Methodologically, this study will investigate this potential moderating influence to further understand how different levels of education can impact the mental health outcomes related to changes in employment status. The examination of this factor is intended to provide insights into how resilience can be enhanced and mental health supported during significant life transitions, such as moving from employment to retirement. In this section, the study's structure, participants, data gathering techniques and analytical methods employed to test the hypothesis are described

### **Research Design**

The cross-sectional research approach is employed to investigate how educational attainment influences the relationship between employment status and mental health. As noted by Creswell and Creswell (2018) this method is appropriate for studying the relationships among these variables at a certain point in time, allowing for an evaluation of mental health across various levels employment status and education. The use of this methodology offers advantages in terms of collecting data from a sample as it allows for the exploration of patterns and associations which can significantly inform the development of interventions and policies aimed at enhancing mental health among older individuals.

### **Respondents**

The research involved individuals aged 60 to 84 residing in Naawan, Misamis Oriental who were part of the Senior Citizen Chapter, in 2019. There were 400 registered citizens in Barangay Mat i according to records. A group of 197 adults was randomly selected for the study using a sample size calculator. The participants were divided into three age categories; 66 74 years) middle old (75 84 years) and retiring (60 65 years) following the Filipino practice of granting senior citizen status at age 60. To be included participants needed to have at a grade reading and writing level, for questionnaire comprehension. Simple random sampling was used to allow every resident a chance of selection. The research did not include individuals aged 85 and above (referred to as the old-old) and those, with education below the 6th grade. This choice was determined so as to allow respondents to read and understand the items in the questionnaire.

### **Data Gathering Procedure**

The data collection procedure process was designed and executed following guidelines to maintain and adhere to ethical standards in research A preliminary visit was made to the Senior Citizen Chapter of Naawan Misamis Oriental, where a letter of intent was presented to gather initial information about the older adult population in

the area and begin to seek permission for the survey. The survey sessions were organized after receiving approval from the Barangay Captain and obtaining a list of older adult members from the organization for sampling. The study methodology was approved the XU Research Ethics Board which allowed data collection. To ensure monitoring and support during the survey administration participants were divided into groups of 10. Special attention was given to participants in the middle-old group ensuring that they received assistance in completing questionnaires even as most could read adequately with reading glasses. The barangay hall was chosen as the data collection site due to its conducive conditions such as ventilation, adequate lighting and suitable seating arrangements for testing.

In this research the evaluation of health scores was done indirectly by looking at factors such, as health conditions and the use of prescribed medications. This study used the Basic Psychological Needs Scale (BPNS), Beck's Depression Inventory (BDI) and Satisfaction with Life Scale (SWLS). For ease in comprehensibility, questions were translated into Cebuano Bisaya and then used for assessment purposes. Language experts checked the translations for accuracy and alignment.

### **Statistical Treatment of Data.**

The study utilized Analysis of Variance (ANOVA) and multiple regression analysis to examine the impact of employment status, educational attainment, and their interaction on mental well-being scores in older adults. According to Tabachnick and Fidell (2013), the rationale for employing ANOVA and multiple regression analysis in this research is found in their capacity to evaluate the impact of several independent variables and their interaction on a continuous dependent variable. These statistical tools are appropriate for investigating complex relationships and assessing hypotheses about the effect of various variables on desired outcomes.

The research study used Analysis of Variance (ANOVA) and multiple regression analysis to examine how employment status, level of education and their combined effect influence mental being scores in older individuals. The use of ANOVA and multiple regression analysis in this study as they are the appropriate tools in assessing the impact of variables and their interaction on a continuous dependent variable (Tabachnick & Fidell 2013). These statistical methods are deemed the appropriate tools for examining relationships and testing hypotheses regarding the influence of educational level on the relationship of employment status and well-being among older adults.

## **RESULTS AND DISCUSSION**

The research utilized Analysis of Variance (ANOVA) and multiple regression to examine how the well-being scores of individuals are influenced by their educational background, employment status and the interplay, between these factors. These are the results: The ANOVA analysis findings showed no correlation between employment status ( $F(1,196) = 0.065, p=.799$ ) and educational level ( $F(1,196) = 0.618, p=.433$ ) with variations in wellbeing scores. Additionally, the results show there was no moderating impact observed from the interaction between employment status and educational level on wellbeing scores ( $F(1,196) = 1.337, p=.249$ ). A significant residual variance value of 130.653 indicated variations in mental health scores beyond what the model accounted for.

The regression analysis results are as follows. The coefficient of determination ( $R$  squared) stood at 0.010 suggesting that only 1% of variability, in mental health scores could be explained. by the model. With an adjusted  $R$  value of 0.005 after considering predictor variables it suggests that the model has limited power or explanatory capability.

Based on the findings, the overall model did not show any results ( $F(3,196) = 0.673, p=.569$ ) did not show statistical significance. This indicates that the model did not effectively predict mental health scores using the factors considered in the analysis, which are employment status and educational level.

The model outcomes suggest that the intercept was statistically significant: ( $B=2.353, p=.021$ ) indicating that mental health score is impacted by employment status and educational achievement, both of these appear to not play a role in the mental health scores for this particular set of population. Additionally, there was no correlation,

between employment status ( $B=0.395, p=.443$ ) and educational attainment ( $B=0.253, p=.353$ ) with mental health scores. Furthermore, it was found that there was no moderating impact of the interaction between employment status and educational level ( $B=0.171, p=.249$ ) on mental health scores.

Table 1:

Source	df	Sum of Squares	Mean Square	F	Pr (>F)
Employment Status	1	0.043	0.043	0.065	0.799
Educational Attainment	1	0.412	0.412	0.618	0.433
Employment Education Interaction	1	0.891	0.891	1.337	0.249
Residual	196	130.653	0.667	-	-

In summary the findings suggest that neither employment status nor educational achievement whether, on their own or together have an impact on the mental health scores of the sample respondents. The model's limited ability to explain this implies that there could be other factors playing a more significant role in determining mental health in this specific group. Future studies should explore factors that could affect mental health to gain a more comprehensive knowledge of what influences mental health in older adults.

## DISCUSSION

The study examines how educational attainment influences the relationship between employment status and mental well-being in older people in the Philippines. This analysis is based on the stress-buffering model of social support and the human capital theory. Despite the absence of a statistically significant moderating impact, the utilization of these theoretical frameworks offers valuable perspectives for understanding the findings and proposing potential avenues for future investigation.

According to Cohen and Wills (1985), the stress-buffering model of social support posits that the presence of social networks and support systems has the potential to alleviate the adverse impacts of stressors, such as unemployment or retirement, on an individual's mental well-being. It may be assumed that those with higher levels of educational achievement would see an improvement in their social networks, resulting in increased support and thus, enhanced mental well-being. The lack of a substantial finding within this particular setting suggests the necessity for more investigation into the quality and efficacy of social support among older individuals in the Philippines.

The human capital hypothesis suggests that investing in education can lead to better career prospects and higher income, which may have an impact on mental well-being (Becker, 1964). The absence of a significant moderating impact in this study indicates that the positive effects of educational achievement, in relation to human capital, may not directly result in improvement in mental well-being for older individuals. This result highlights the complex nature of the elements that impact mental health and the significant influence that cultural, economic, and social variables can have.

The results of this study suggest that there is no statistically significant correlation between employment status, educational achievement, and mental well-being among older persons. This raises the need for a detailed investigation of the clinical significance of these variables. Although the statistical significance is lacking, the impact of employment and education on the mental health and overall quality of life of older persons can be significant.

The present study does not establish a clear correlation between employment status and educational achievement and mental well-being scores. However, it is important to note that these factors play a crucial role in shaping the social identity, sense of purpose, and cognitive engagement of older persons. Employment not only delivers monetary benefits but also provides relationships, a routine, and a sense of having a positive impact on society, all of which are essential for mental well-being (Waddell & Burton, 2006). Likewise, there exists a correlation between educational achievement and enhanced health outcomes, maybe attributable to enhanced health literacy

and increased availability of tools that promote health (Mirowsky & Ross, 2003).

The significance of these findings in a clinical context is to acknowledge the important role of social and cognitive involvement in enhancing mental well-being among older individuals. Interventions targeting the improvement of mental health within this particular age group should take into account the facilitation of sustained involvement in occupational, educational, or voluntary pursuits. Engaging in such activities can offer significant social responsibilities and cognitive stimulation, which can enhance mental well-being (Hao, 2008).

Additionally, the idea of cognitive reserve posits that the continuous pursuit of knowledge and involvement in intellectually engaging pursuits might foster the development of resilience against cognitive decline and mental health challenges during the later stages of life (Stern, 2012). Educational programs specifically designed for the elderly population have the potential to provide avenues for social engagement and cognitive engagement, thereby fostering mental well-being.

The findings of this study did not show any significant impact of employment status and educational attainment on mental well-being. However, they emphasize the importance of adopting a comprehensive approach to mental health in older individuals. Further investigation is warranted to examine supplementary variables that impact mental well-being, including but not limited to physical health, social support, and lifestyle choices. Longitudinal studies have the potential to offer valuable insights into the impact of changes in work and educational participation on mental health outcomes over an extended period.

In conclusion, the lack of significant statistical evidence does not undermine the clinical significance of employment and education in the lives of older persons. An all-encompassing strategy for promoting mental well-being in this demographic should take into account the complex and diverse aspects of mental health, highlighting the importance of active involvement, meaning, and continuous education.

## RECOMMENDATIONS

The study's findings on how educational level affect the relationship between mental status and mental health among a sample of older adults in the Philippines suggest that policymakers could focus on creating and executing comprehensive efforts to promote mental health awareness in education and employment. This involves supporting continuous learning programs, investing resources in accessible mental health services for various demographics, including those without jobs or individuals approaching retirement or in retirement. It is also important for educators to incorporate mental health education into the curriculum to prepare students for life's challenges beyond academics.

Mental health professionals may need to tailor interventions based on individuals employment status and educational background, providing culturally sensitive care that respects the unique socio economic and cultural landscape of the Philippines. Community outreach programs, especially in rural areas with limited access to services, are essential for increasing mental health awareness and reducing stigma. Additionally, comparative studies across different cultures and economic settings can deepen the understanding of both universal and culture specific factors influencing global mental health. Long term studies can also show how education and career transitions impact mental health over time. Encouraging international cooperation and sharing best practices integrating mental health support in schools and workplaces could lead to better overall mental health strategies in the older population, it is then important to recognize the complex relationship between educational level, employment status and mental health.

This study did not show a significant correlation between education levels, employment status and mental health in older individuals. It is then suggested that future research take a more comprehensive approach to explore other factors that affect the emotional mental health of this demographic group. To gain a better understanding of mental health in older people, it would be helpful to consider a wider range of variables such as physical health, social support and financial stability. Additionally, employing longitudinal designs can help examine how these factors impact mental health or mental health over time. Further investigation may be needed to explore into the concept of cognitive resilience and understand how lifelong learning influences mental health outcomes. Additionally, mixed research methods could provide more insights into the personal experiences of

older adults, adding qualitative depth to quantitative results.

Through exploring these areas, future research efforts could greatly improve our knowledge of the mental health of older adults, ultimately leading to the development of targeted and effective strategies to enhance the mental health of this group.

## CONCLUSION

This study focused on how education levels impact the relation between employment status and mental health older individuals living in the Philippines. There were no significant results were found. Nonetheless, the study highlights the complex interplay of socio economic and cultural factors affecting the mental health of older adults. This underscores the need for a more comprehensive approach in crafting policies, education initiatives and mental health support to boost the mental health of older adults.

The findings indicate that policies and educational efforts promoting lifelong learning and meaningful engagement are beneficial for mental health, underscoring the importance of considering various factors in mental health interventions. Further investigation is necessary to explore these connections using long term studies and a wider range of variables to deepen the understanding of mental health among older adults This research contributes valuable insights to discourse on aging, employment and education by suggesting tailored interventions and policies to improve the mental wellness and overall quality of life for older individuals in the Philippines and globally.

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