

# Spiritual Well-Being and Depression in Hospitalized Adults



Ana Concepción PsyD.; Manuel Morillo, M.D.; Jonathan Charriez, M.D.; Francisco Maldonado, M.D.; José Molina, M.D.; Alejandro Berrocal, M.D.; Ovianny Silverio, M.D.



## Mayagüez Medical Center – Family Medicine Residency

### INTRODUCTION

- ❖ Spirituality, including the formal structure of religion, has been a constant element of life as far as historical records go.
- ❖ Spiritual well-being is an important coping resource in patients with terminal cancer and is associated with less depression.<sup>[1]</sup>
- ❖ Depression is one of the most common and disabling chronic health problems. Lifetime prevalence of unipolar major depression has reached 21 percent.<sup>[2]</sup>
- ❖ 1 in 3 hospitalized patients experience symptoms of depression; which increases morbidity, mortality, and can negatively influence the recovery process.<sup>[3]</sup>
- ❖ Among a sample of patients with heart failure, greater spiritual well-being was strongly associated with less depression.<sup>[4]</sup>
- ❖ The purpose of this investigation was to explore the proposed association between spiritual well-being & depression in hospitalized adults.
- ❖ Additionally, to screen for depression symptoms in hospitalized adults in Mayagüez Medical Center.
- ❖ As chronic conditions have multifactorial risk factors for disease, therapeutic interventions should include an integrative perspective based on evidence.

### METHOD

- ❖ Cross-sectional study of hospitalized patients from March 2021 through April 2021.
- ❖ Inclusion criteria: Adults, 21 years or older with literacy, hospitalized in the Mayagüez Medical Center from March 2021 through April 2021.
- ❖ Exclusion criteria:
  - Disoriented patients
  - Diagnosis of dementia, psychotic disorder
  - Current use of anti-depressives and/or anti-psychotics
  - Unable to understand the study protocol and provide informed consent



### METHOD

- ❖ Measurements:
  - The Patient Health Questionnaire - 9 (PHQ-9)
  - Functional Assessment of Chronic Illness Therapy - Spiritual Well-Being (FACIT-sp) questionnaire<sup>[5]</sup>
- ❖ The study was described and the opportunity for informed consent was provided. Past Medical History was reviewed with the patient.
- ❖ The PHQ-9 and Facit-SP questionnaires were administered in the language of their preference Spanish or English.
- ❖ Patients with positive PHQ-9 screenings were offered psychological evaluations for further management.
- ❖ Data analysis was aimed at evaluating for a correlation coefficient between the scores of the Facit-SP & PHQ-9 questionnaires.

### RESULTS

- ❖ **Sample size:** 61 participants
  - Mean age: 55.0 years
  - Median age: 58.0, SD 18.3
- ❖ **Distribution by Sex:**
  - Female: 49% (30 participants)
  - Male: 51% (31 participants)

Table 1. Prevalence of chronic conditions

Chronic Conditions	N (%)
Cancer	12 (19.7)
COPD	4 (6.6)
Diabetes	27 (44.3)
Heart Failure	12 (19.7)
Hypertension	40 (65.6)

Table 2. Facit-SP mean scores by sex

Sex	Facit-SP Mean
Female	39.9
Male	39.0

Difference: -0.9 (95% CI: -5.21 to 3.4)

### RESULTS

Figure 1. Facit-SP scores by age

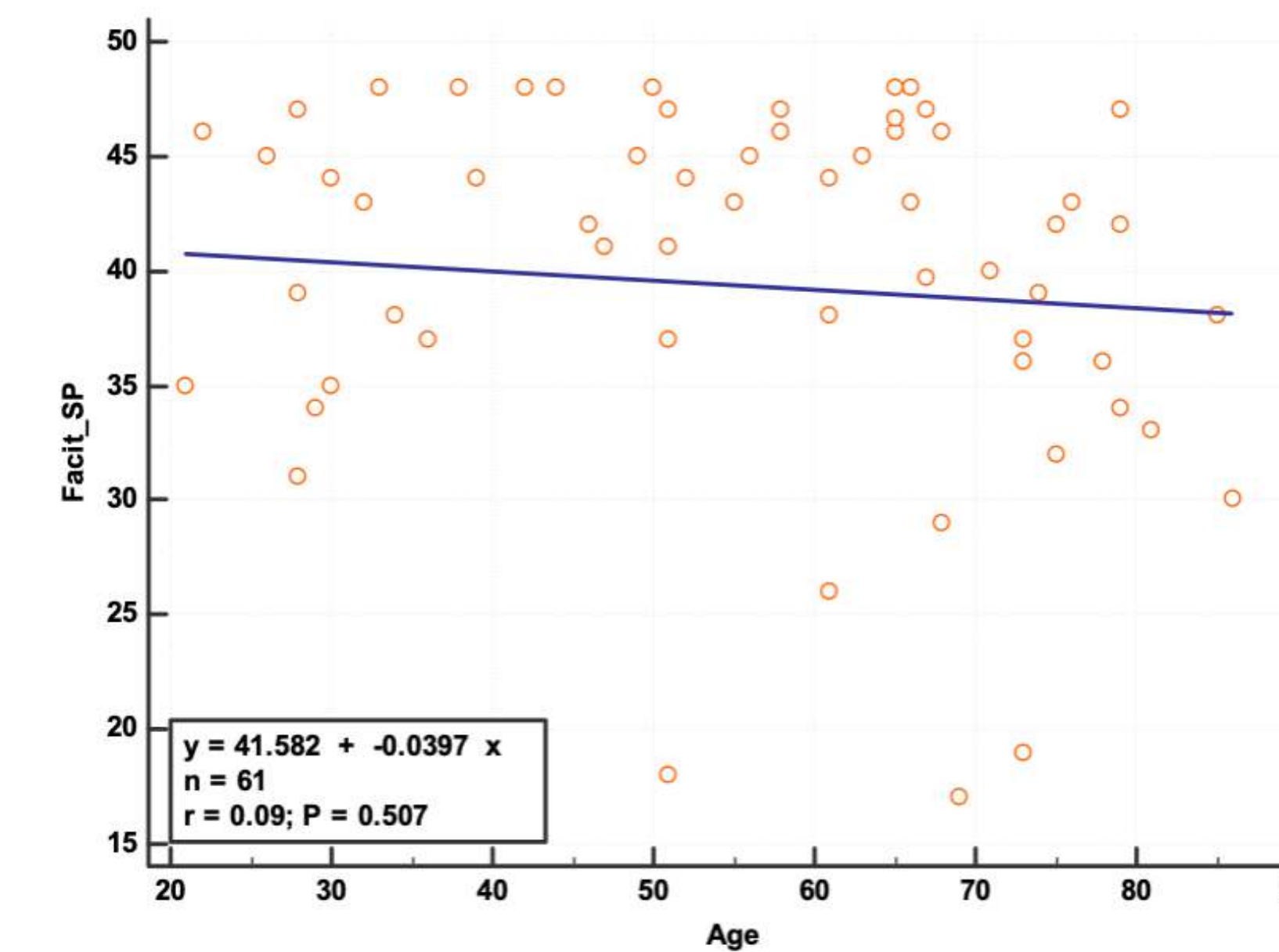


Figure 2. PHQ-9 results distribution by severity

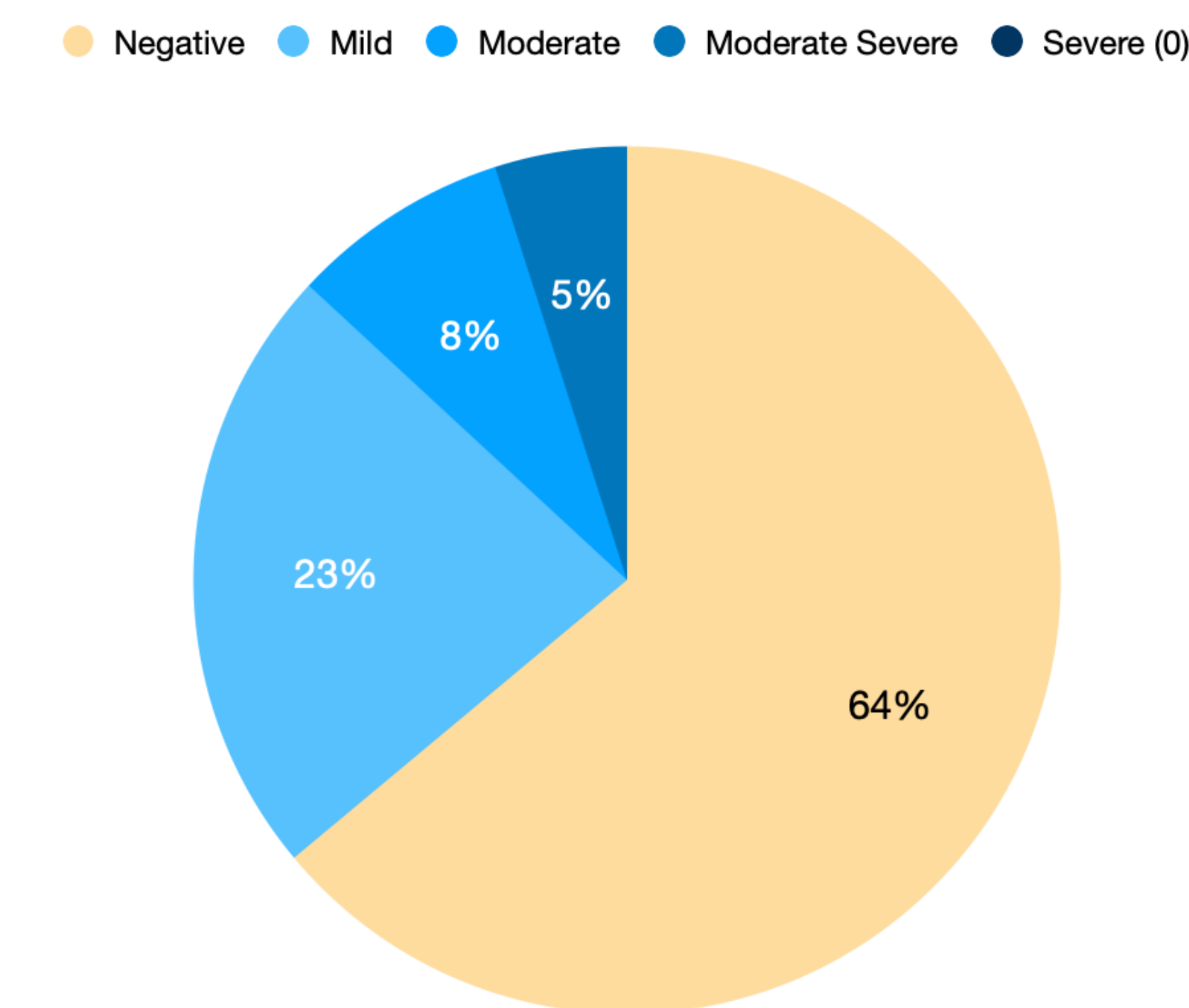
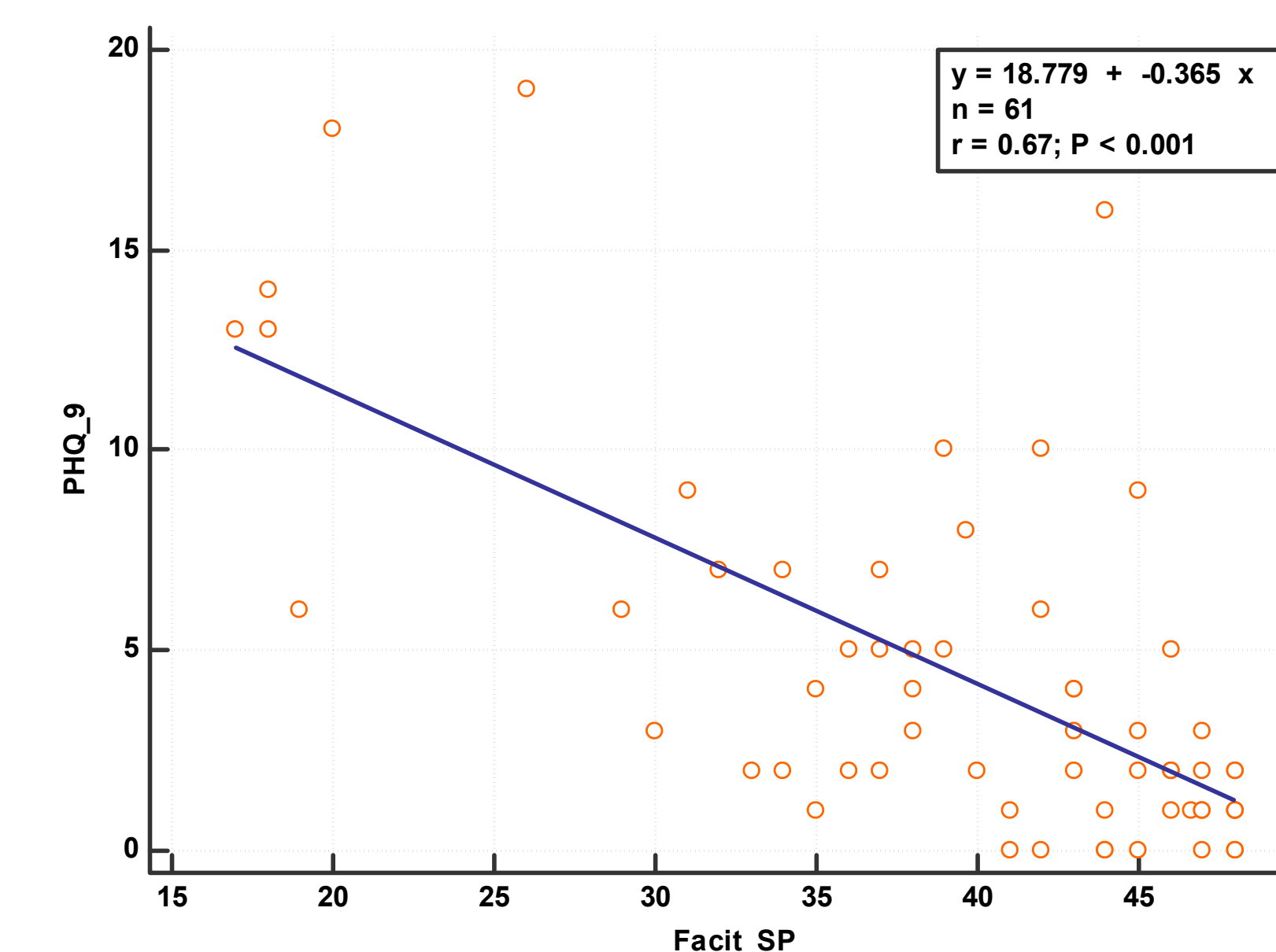


Figure 3. Relationship between PHQ-9 and Facit-SP scores



Correlation coefficient: -0.67 (95% CI: -0.70 to -0.50)

### CONCLUSIONS

- ❖ Prevalence of chronic diseases was higher in the sample than in the general public.
- ❖ More than half of the sample was hypertensive.
- ❖ Positive screenings for depression were around 5 times higher than the prevalence of the disease in the general population (36.1% vs 6.7%, respectively).
  - **Application:** Psychological screening should be promoted as part of inpatient management.
- ❖ Facit-SP scores were not significantly associated to age & sex.
  - **Application:** Do not bias spiritual well-being to specific age groups or sex.
- ❖ In a sample of 61 hospitalized adults, greater spiritual well-being was associated with less depression symptoms.
  - **Application:** Physicians should assess spiritual factors as part of history-taking and health-care facilities should provide spiritual resources for patients.

### LIMITATIONS

- ❖ Only 1 hospital evaluated.
- ❖ Acute stress during hospitalization may confound PHQ-9 scores.

### REFERENCES

- Steinhauser K, Fitchett G, et al. State of the Science of Spirituality and Palliative Care Research Part I: Definitions, Measurement, and Outcomes. J Pain Symptom Manage 2017;54:428e440.
- Hasin DS, Sarvet AL, et al. Epidemiology of Adult DSM-5 Major Depressive Disorder and Its Specifiers in the United States. JAMA Psychiatry. 2018 Apr 1;75(4):336-346.
- Munk T, Musliner K, et al. Mortality and life expectancy in persons with severe unipolar depression. Journal of Affective Disorders. 2016 Mar 15; 203-207. 193: 203-207.
- Bekelman D, Dy S, et al. Spiritual Well-Being and Depression in Patients with Heart Failure. Society of General Internal Medicine 2007;22:470-477
- Bredle J, Salsman J, et al. Spiritual Well-Being as a Component of Health-Related Quality of Life: The Functional Assessment of Chronic Illness Therapy—Spiritual Well-Being Scale (FACIT-Sp). Religions 2011;2:77-94
- Maurer D, Raymond T, et al. Depression: Screening and Diagnosis. Am Fam Physician. 2018 Oct 15;98(8):508-515.

### ACKNOWLEDGMENT

We would like to thank Dr. Iván Iriarte for his support in research development and analysis of the data; Dr. Alejandra González for her mentoring throughout the project; and Cristina Morales for providing administrative diligence.



IRB Protocol Number: 2011049677





# Introduction

- ❖ Spirituality, including the formal structure of religion, has been a constant element of life as far as historical records go.
- ❖ Spiritual well-being is an important coping resource in patients with terminal cancer and is associated with less depression.<sup>[1]</sup>
- ❖ Depression is one of the most common and disabling chronic health problems. Lifetime prevalence of unipolar major depression has reached 21 percent.<sup>[2]</sup>
- ❖ 1 in 3 hospitalized patients experience symptoms of depression; which increases morbidity, mortality, and can negatively influence the recovery process.<sup>[3]</sup>





# Introduction

- ❖ Among a sample of patients with heart failure, greater spiritual well-being was strongly associated with less depression.[4]
- ❖ The purpose of this investigation was to explore the proposed association between spiritual well-being & depression in hospitalized adults.
- ❖ Additionally, to screen for depression symptoms in hospitalized adults in Mayagüez Medical Center.
- ❖ As chronic conditions have multifactorial risk factors for disease, therapeutic interventions should include an integrative perspective based on evidence.





# Method

## ❖ **Cross-sectional study**

❖ **Inclusion criteria:** Adults, 21 years or older with literacy, hospitalized in the Mayagüez Medical Center from March 2021 through April 2021.

## ❖ **Exclusion criteria:**

- Disoriented patients
- Diagnosis of dementia, psychotic disorder
- Current use of anti-depressives and/or anti-psychotics
- Unable to understand the study protocol and provide informed consent





# Method

## ❖ **Measurements:**

- The Patient Health Questionnaire - 9 (PHQ-9)
  - Functional Assessment of Chronic Illness Therapy - Spiritual Well-Being (FACIT-sp) questionnaire<sup>[5]</sup>
- 
- ❖ The study was described and the opportunity for informed consent was provided. Past Medical History was reviewed with the patient.
  - ❖ The PHQ-9 and Facit-SP questionnaires were administered in the language of their preference Spanish or English.
  - ❖ Patients with positive PHQ-9 screenings were offered psychological evaluations for further management.
  - ❖ Data analysis was aimed at evaluating for a correlation coefficient between the scores of the Facit-SP & PHQ-9 questionnaires.





# Results

## ❖ **Sample size: 61 participants**

- Mean age: 55.0 years
- Median age: 58.0, SD 18.3

## ❖ **Distribution by sex:**

- Female: 49% (30 participants)
- Male: 51% (31 participants)

**Table 1. Prevalence of chronic conditions**

<b>Chronic Conditions</b>	<b>N (%)</b>
Cancer	12 (19.7)
COPD	4 (6.6)
Diabetes	27 (44.3)
Heart Failure	12 (19.7)
Hypertension	40 (65.6)

**Table 2. Facit-SP mean scores by sex**

<b>Sex</b>	<b>Facit-SP Mean</b>
Female	39.9
Male	39.0

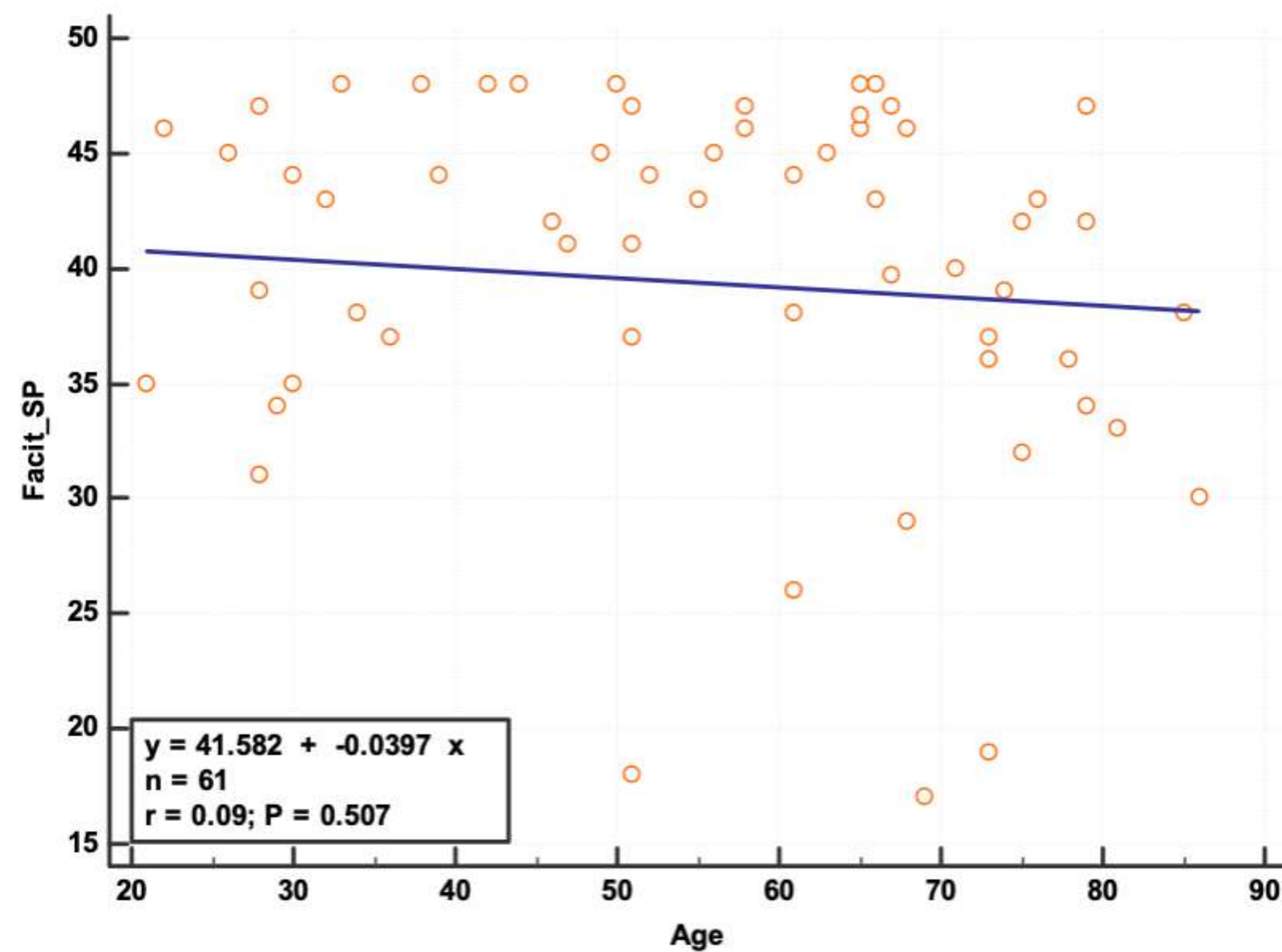
Difference: -0.9 (95% CI: -5.21 to 3.4)





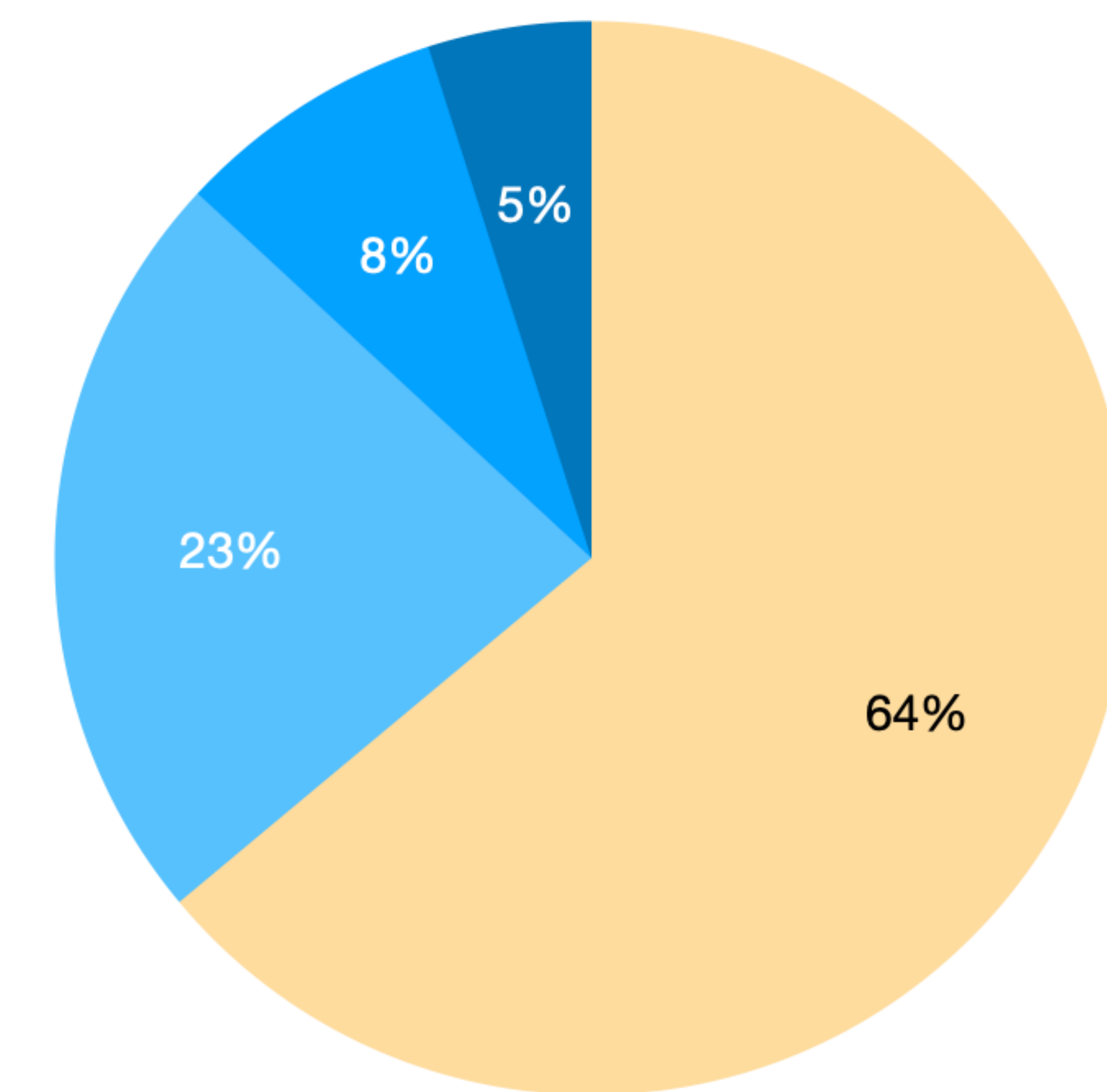
# Results

**Figure 1. Facit-SP scores by age**



**Figure 2. PHQ-9 results distribution by severity**

● Negative ● Mild ● Moderate ● Moderate Severe ● Severe (0)

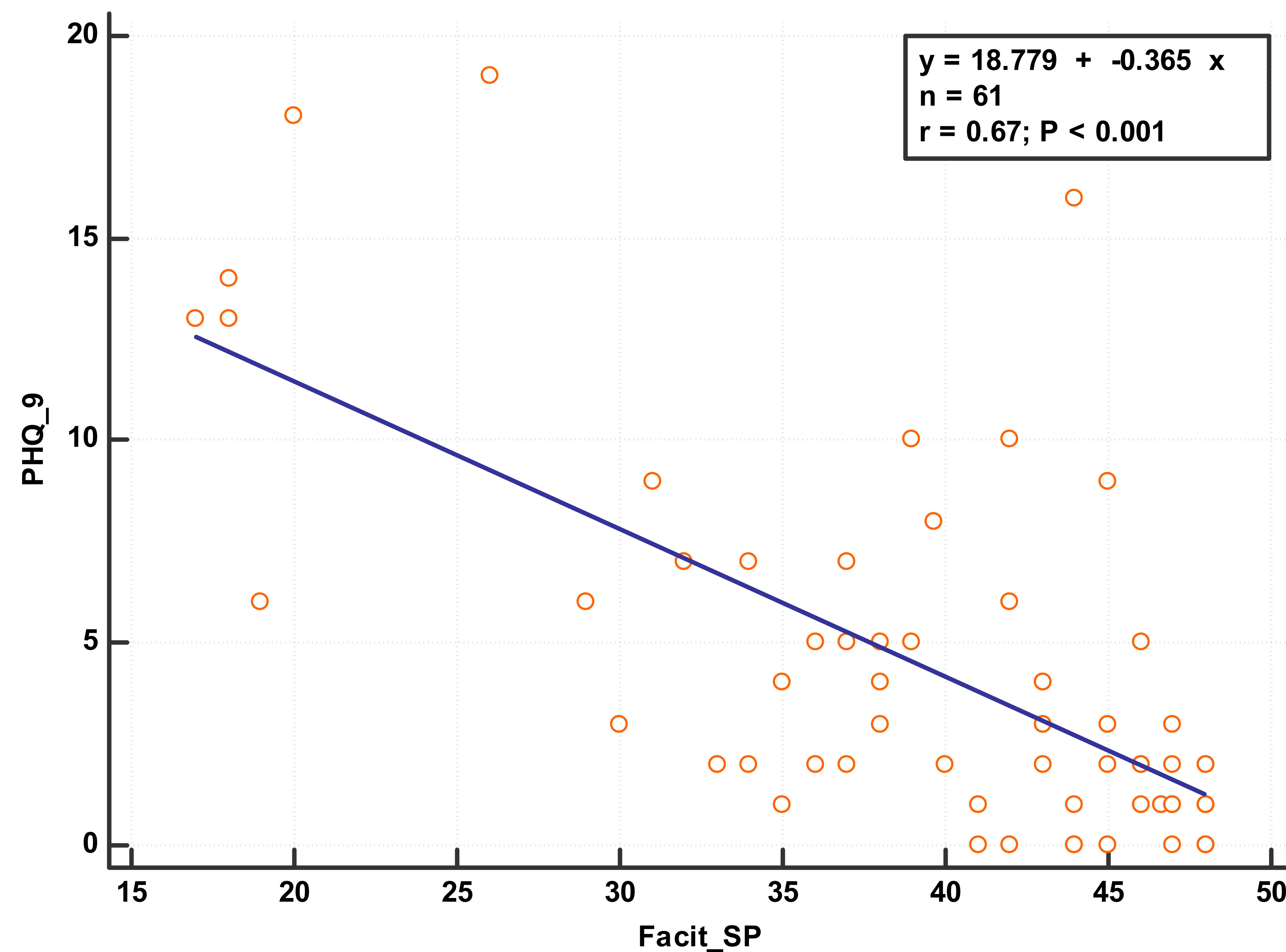






# Results

**Figure 3. Relationship between PHQ-9 and Facit-SP scores**



Correlation coefficient: -0.67 (95% CI: -0.70 to -0.50)





# Conclusions

- ❖ Prevalence of chronic diseases was higher in the sample than in the general public.
- ❖ More than half of the sample was hypertensive.
- ❖ Positive screenings for depression were around 5 times higher than the prevalence of the disease in the general population (36.1% vs 6.7%, respectively).
  - **Application:** Psychological screening should be promoted as part of inpatient management.





# Conclusions

- ❖ Facit-SP scores were not significantly associated to age & sex.
  - **Application:** Do not bias spiritual well-being to specific age groups or sex.
  
- ❖ In a sample of 61 hospitalized adults, greater spiritual well-being was associated with less depression symptoms.
  - **Application:** Physicians should assess spirituality as part of history-taking and health-care facilities should provide spiritual resources for patients.



# Spiritual Well-Being and Depression in Hospitalized Adults



Ana Concepción PsyD.; Manuel Morillo, M.D.; Jonathan Charriez, M.D.; Francisco Maldonado, M.D.; José Molina, M.D.; Alejandro Berrocal, M.D.; Ovianny Silverio, M.D.



## Mayagüez Medical Center – Family Medicine Residency

### INTRODUCTION

- ❖ Spirituality, including the formal structure of religion, has been a constant element of life as far as historical records go.
- ❖ Spiritual well-being is an important coping resource in patients with terminal cancer and is associated with less depression.<sup>[1]</sup>
- ❖ Depression is one of the most common and disabling chronic health problems. Lifetime prevalence of unipolar major depression has reached 21 percent.<sup>[2]</sup>
- ❖ 1 in 3 hospitalized patients experience symptoms of depression; which increases morbidity, mortality, and can negatively influence the recovery process.<sup>[3]</sup>
- ❖ Among a sample of patients with heart failure, greater spiritual well-being was strongly associated with less depression.<sup>[4]</sup>
- ❖ The purpose of this investigation was to explore the proposed association between spiritual well-being & depression in hospitalized adults.
- ❖ Additionally, to screen for depression symptoms in hospitalized adults in Mayagüez Medical Center.
- ❖ As chronic conditions have multifactorial risk factors for disease, therapeutic interventions should include an integrative perspective based on evidence.

### METHOD

- ❖ Cross-sectional study of hospitalized patients from March 2021 through April 2021.
- ❖ Inclusion criteria: Adults, 21 years or older with literacy, hospitalized in the Mayagüez Medical Center from March 2021 through April 2021.
- ❖ Exclusion criteria:
  - Disoriented patients
  - Diagnosis of dementia, psychotic disorder
  - Current use of anti-depressives and/or anti-psychotics
  - Unable to understand the study protocol and provide informed consent



### METHOD

- ❖ Measurements:
  - The Patient Health Questionnaire - 9 (PHQ-9)
  - Functional Assessment of Chronic Illness Therapy - Spiritual Well-Being (FACIT-sp) questionnaire<sup>[5]</sup>
- ❖ The study was described and the opportunity for informed consent was provided. Past Medical History was reviewed with the patient.
- ❖ The PHQ-9 and Facit-SP questionnaires were administered in the language of their preference Spanish or English.
- ❖ Patients with positive PHQ-9 screenings were offered psychological evaluations for further management.
- ❖ Data analysis was aimed at evaluating for a correlation coefficient between the scores of the Facit-SP & PHQ-9 questionnaires.

### RESULTS

- ❖ **Sample size:** 61 participants
  - Mean age: 55.0 years
  - Median age: 58.0, SD 18.3
- ❖ **Distribution by Sex:**
  - Female: 49% (30 participants)
  - Male: 51% (31 participants)

Table 1. Prevalence of chronic conditions

Chronic Conditions	N (%)
Cancer	12 (19.7)
COPD	4 (6.6)
Diabetes	27 (44.3)
Heart Failure	12 (19.7)
Hypertension	40 (65.6)

Table 2. Facit-SP mean scores by sex

Sex	Facit-SP Mean
Female	39.9
Male	39.0

Difference: -0.9 (95% CI: -5.21 to 3.4)

### RESULTS

Figure 1. Facit-SP scores by age

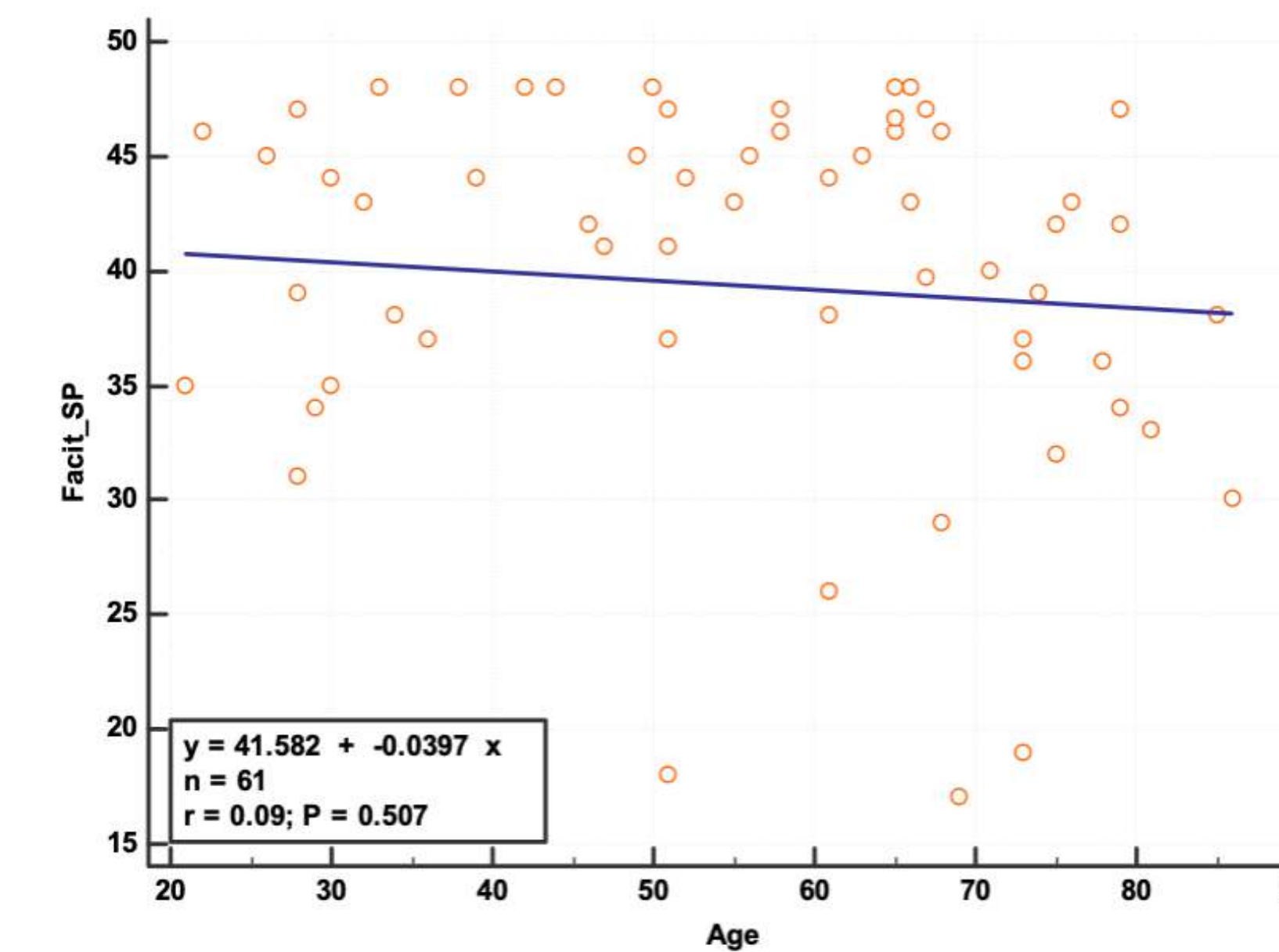


Figure 2. PHQ-9 results distribution by severity

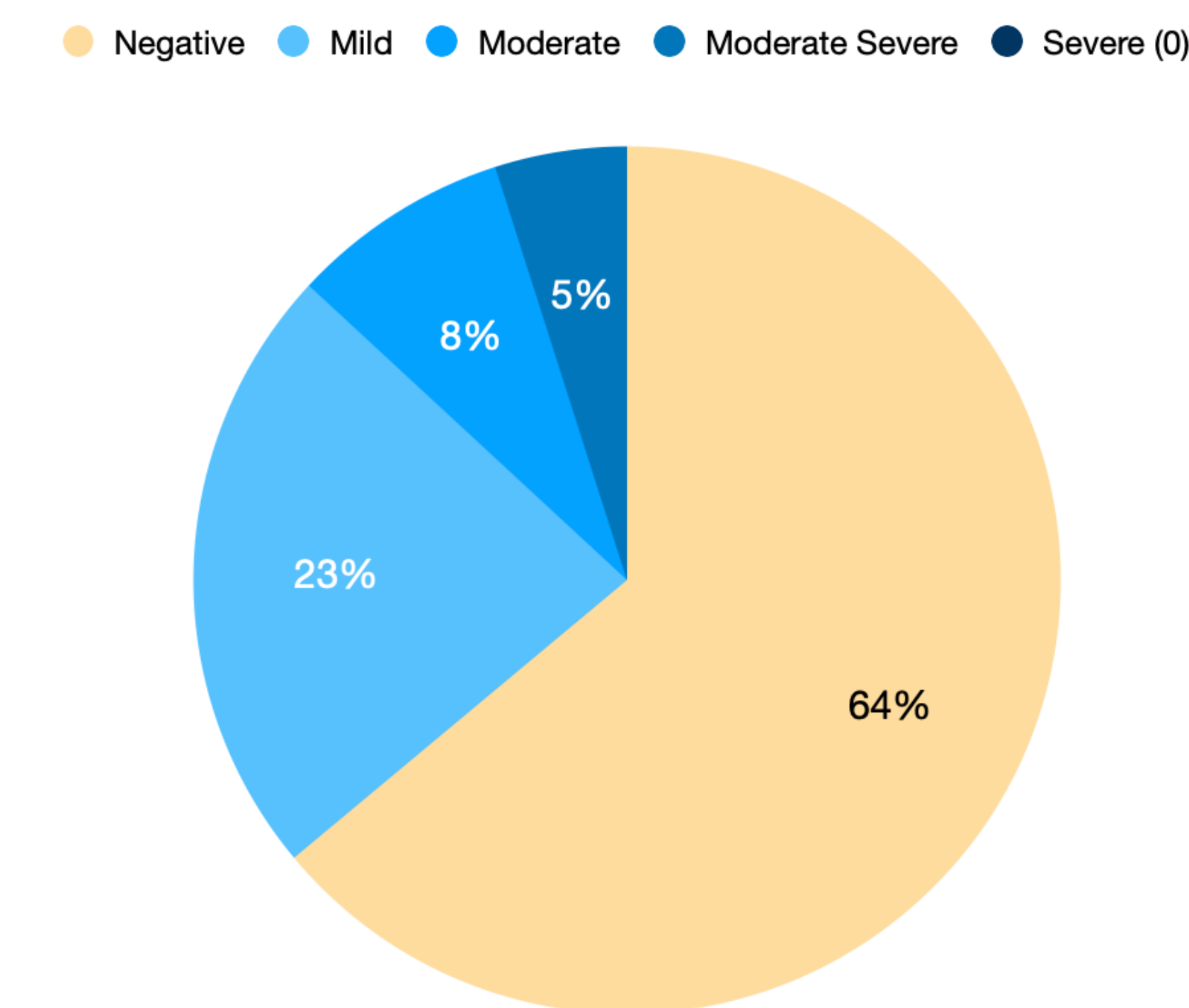
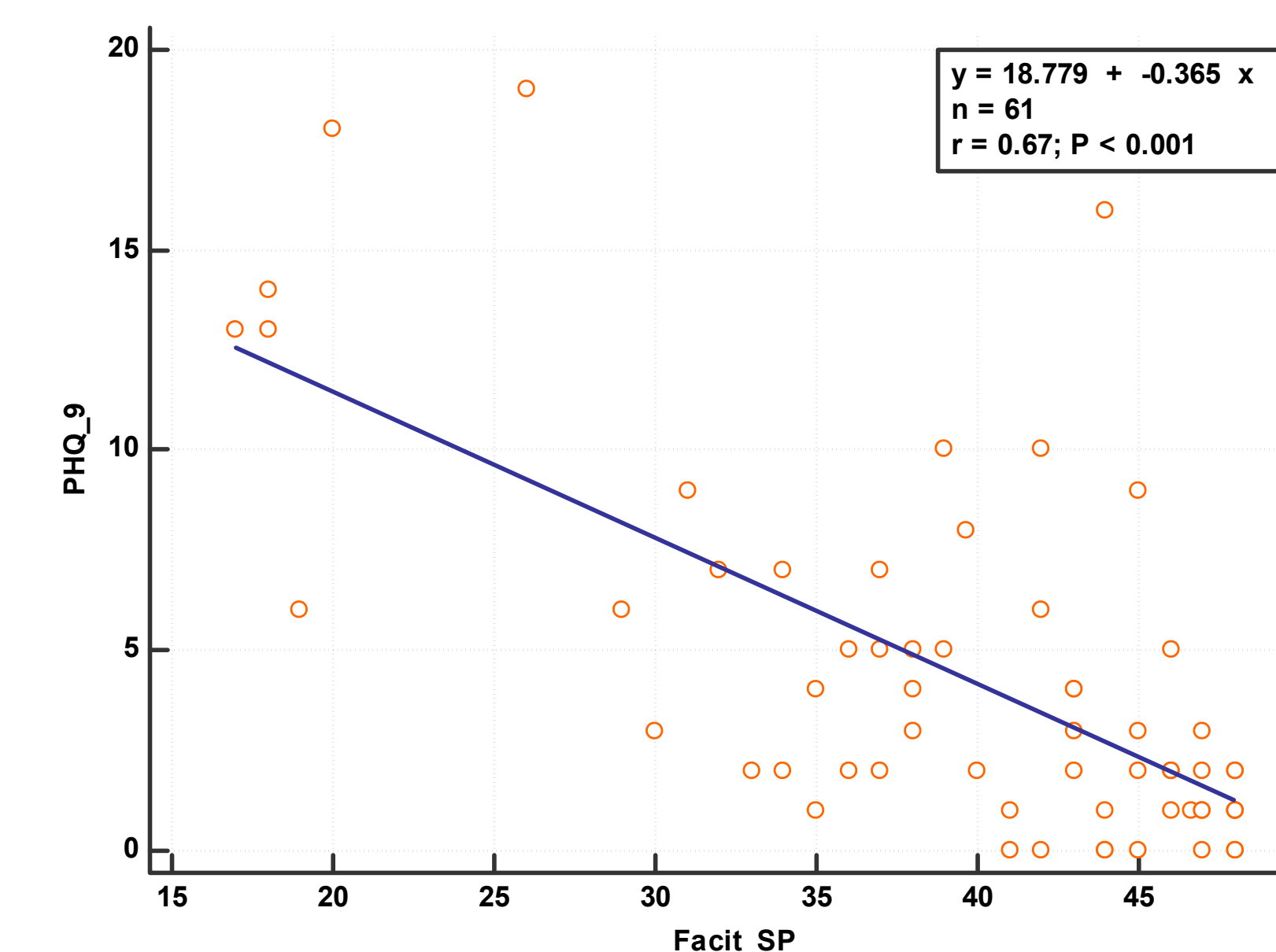


Figure 3. Relationship between PHQ-9 and Facit-SP scores



Correlation coefficient: -0.67 (95% CI: -0.70 to -0.50)

### CONCLUSIONS

- ❖ Prevalence of chronic diseases was higher in the sample than in the general public.
- ❖ More than half of the sample was hypertensive.
- ❖ Positive screenings for depression were around 5 times higher than the prevalence of the disease in the general population (36.1% vs 6.7%, respectively).
  - **Application:** Psychological screening should be promoted as part of inpatient management.
- ❖ Facit-SP scores were not significantly associated to age & sex.
  - **Application:** Do not bias spiritual well-being to specific age groups or sex.
- ❖ In a sample of 61 hospitalized adults, greater spiritual well-being was associated with less depression symptoms.
  - **Application:** Physicians should assess spiritual factors as part of history-taking and health-care facilities should provide spiritual resources for patients.

### LIMITATIONS

- ❖ Only 1 hospital evaluated.
- ❖ Acute stress during hospitalization may confound PHQ-9 scores.

### REFERENCES

- Steinhauser K, Fitchett G, et al. State of the Science of Spirituality and Palliative Care Research Part I: Definitions, Measurement, and Outcomes. J Pain Symptom Manage 2017;54:428e440.
- Hasin DS, Sarvet AL, et al. Epidemiology of Adult DSM-5 Major Depressive Disorder and Its Specifiers in the United States. JAMA Psychiatry. 2018 Apr 1;75(4):336-346.
- Munk T, Musliner K, et al. Mortality and life expectancy in persons with severe unipolar depression. Journal of Affective Disorders. 2016 Mar 15; 203-207. 193: 203-207.
- Bekelman D, Dy S, et al. Spiritual Well-Being and Depression in Patients with Heart Failure. Society of General Internal Medicine 2007;22:470-477
- Bredle J, Salsman J, et al. Spiritual Well-Being as a Component of Health-Related Quality of Life: The Functional Assessment of Chronic Illness Therapy—Spiritual Well-Being Scale (FACIT-Sp). Religions 2011;2:77-94
- Maurer D, Raymond T, et al. Depression: Screening and Diagnosis. Am Fam Physician. 2018 Oct 15;98(8):508-515.

### ACKNOWLEDGMENT

We would like to thank Dr. Iván Iriarte for his support in research development and analysis of the data; Dr. Alejandra González for her mentoring throughout the project; and Cristina Morales for providing administrative diligence.



IRB Protocol Number: 2011049677