DEVELOPED AND IMPLEMENTED BY

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BOSTON MA.

2022 MENTAL HEALTH NEEDS ASSESSMENT OF THE

LGBTIQ+ COMMUNITY AGED 50+ LIVING IN PUERTO RICO



BY WAVES AHEAD CORP



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EXECUTIVE SUMMARY

Waves Ahead Puerto Rico, a non-profit organization serving LGBTQ+ older adults, conducted a study to address their mental health needs. Following a review of the key results of previous research on the mental health of older adults in general as well as LGBTQ+ older adults, the study then examines the unique mental health challenges that are experienced by the LGBTQ+ group. The research focused on the limited information available in Puerto Rico regarding older LGBTQ+ adults. The study employed a mixed methods design, consisting of 462 surveys and 20 in-depth interviews.

The mental health needs of older adults are increasingly important as the population ages. Older LGBTQ+ adults tend to face higher rates of physical illnesses and adverse psychosocial circumstances compared to the general older adult population. Discrimination in healthcare, caregiving, retirement policies, and end-of-life decisions contribute to stress, avoidance of healthcare, and limited access to health and mental healthcare among LGBTQ+ adults.

The survey included 462 respondents and 20 in-depth interviews with individuals who were at least 50 years old, living in Puerto Rico for at least six months a year, identified as LGBTQ+, and provided consent. The typical participant profile was a white, Hispanic, single gay male with an average age of 58 residing in the metropolitan region of Puerto Rico.

The results revealed a significant association between age and anxiety, depression, or suicidal thoughts. Participants experiencing these conditions were younger on average than those without. Education and income also influenced the impact of health on participants' daily activities. Discrimination was not frequently reported, but approximately 20% reported suicidal thoughts in the past year, and nearly half reported traumatic experiences. On average, participants reported being unable to perform normal activities for five out of the last 30 days due to health-related issues.

The analysis of in-depth interviews identified several themes, including the participants' definition of mental health, perceptions of mental health services in Puerto Rico, experiences with therapists (preferably LGBTQ+ therapists), underlying causes of mental health disorders, loneliness experiences, distress, experiences of suicide in their social networks, and coping mechanisms.

The study's findings underscore the need for customized mental health services tailored to the unique needs of older adults, especially those in the LGBTQ+ community. A comprehensive range of services should be developed, encompassing various aspects of necessary mental health and social support. It is crucial to provide training and support to healthcare professionals working with older adults to ensure they possess the necessary skills and knowledge to provide inclusive care. By implementing these recommendations, the well-being and quality of life of older adults, including LGBTQ+ individuals, can be enhanced, ensuring equitable and optimal care.



INTRODUCTION

Since its inception in 2018, Waves Ahead Puerto Rico has tirelessly advocated for health equity among the lesbian, nonbinary, gay, bisexual, transgender, two-spirited, queer, and intersex (henceforth referred to as LGBTQ+) community. Recently, the organization conducted two needs assessment studies to understand the challenges faced by this marginalized and vulnerable community. The findings of the first study¹ revealed that beyond the urgent need for safe and inclusive housing, the participants desperately required accessible mental health services.

In its second study, Waves Ahead Puerto Rico aimed to shed light on the mental health needs of individuals living with HIV within the LGBTO+ community². The participants in this study were individuals aged 50 years or above who were living with HIV, were knowledgeable regarding navigating the healthcare system, and had developed coping strategies to deal with the homophobia and stigma they often faced. Moreover, they were fierce protectors of younger LGBTQ+ individuals. These remarkable individuals were also highly educated, with many of them possessing graduate or postgraduate degrees. Further, unlike their counterparts living in mainland areas (i.e., the Latino elderly living with HIV), they did not face significant barriers to accessing healthcare, such as lack of insurance, language barriers, or discrimination from providers. However, despite these positive aspects, the data revealed distressing findings. These resilient individuals struggled with social

About Waves Ahead Puerto Rico

Waves Ahead Puerto Rico is a non-profit organization supporting marginalized and vulnerable populations in Puerto Rico. Waves Ahead has offices in the capital of Puerto Rico, San Juan: Isabela on the northwest cost: Cabo Rojo on the southwest coast; and Maunabo on the southeast coast. The organization promotes mental and psychosocial health among older adults, seniors, homeless individuals, female heads of households, and other underserved communities, with a particular emphasis on older LGBTQ+ adults. Through its efforts, Waves Ahead is making a significant impact in Puerto Rico by providing a safe and supportive environment for those that are often marginalized and overlooked. organization is committed to creating positive change and making a lasting difference in the lives of those they serve.

isolation, depression, and anxiety, which affected their mental health and well-being. Mental health concerns were found to have a profound impact on the overall quality of life of this already vulnerable population. These findings were especially relevant to Waves Ahead Puerto Rico, which understands that mental health is not a luxury but a fundamental human right and, therefore, is committed to making a difference and providing support where it is needed the most. The need to assess the impact of isolation and loneliness on the lives of these LGBTQ+ individuals prompted a third study in the form of a mental health needs assessment of older LGBTQ+ adults in Puerto Rico.

The following is a synopsis of the scientific evidence supporting the necessity for this assessment: First, we examine the mental health needs of older adults in general before addressing the mental health issues specific to the LGBTQ+ population. This is followed by the intersection of the two to investigate the situation of older LGBTQ+ adults while focusing on the limited information available on this topic in the

¹ https://wavesahead.org/wp-content/uploads/2021/05/2020-Report-on-Housing-for-LGBT-Elder-Adults.pdf

² https://wavesahead.org/wp-content/uploads/



context of Puerto Rico. This section concludes with an overview of the mental health services in Puerto Rico in order to provide the reader with the context for this study.

Mental Health Needs of Older Adults

As the population ages, the mental health needs of older adults are becoming an increasingly important issue. Many older adults experience various mental health challenges, such as depression, anxiety, and cognitive decline.⁴ Therefore, older adults must receive proper care and support to maintain their mental health and quality of life.

Some significant challenges faced by older adults regularly are as follows:⁵

- Depression can arise from losing loved ones, chronic illness, or social isolation.
- Anxiety can be triggered by health concerns or changes in the living situation.
- Cognitive decline can range from mild memory loss to severe dementia, affecting daily activities and requiring specialized care.
- Social isolation can become a profound issue, especially for older adults who live alone or have a limited social network, leading to feelings of loneliness and disconnection.
- Dementia can cause immense stress for older adults as well as their families as it impacts daily functioning, which may require specialized care.
- Substance abuse can afflict older adults, particularly those coping with pain, loneliness, or other physical or psychological issues, thereby worsening their overall well-being and exacerbating their issues.

Thus, factors such as depression, anxiety, cognitive decline, and social isolation can have severe consequences for the well-being of the elderly. When we reflect on the challenges faced by older adults, it becomes evident that addressing their mental health concerns is a critical necessity.⁶

To address the mental health needs of older adults, it is important to first improve their access to healthcare providers. For instance, mental health professionals such as psychiatrists, psychologists, and social workers can offer services such as counseling and therapy to help older adults manage their mental health challenges. By connecting older adults with these resources, we can ensure that they receive the proper care and support they need to maintain their mental health and quality of life.

³ Cosco, T. D., Fortuna, K., Wister, A., Riadi, I., Wagner, K., & Sixsmith, A. (2021). COVID-19, social isolation, and mental health among older adults: a digital catch-22. Journal of Medical Internet Research, 23(5), e21864.

⁴ Niclasen, J., Lund, L., Obel, C., & Larsen, L. (2019). Mental health interventions among older adults: a systematic review. Scandinavian Journal of Public Health, 47(2), 240–250.

⁶ Reynolds 3rd, C. F., Jeste, D. V., Sachdev, P. S., & Blazer, D. G. (2022). Mental health care for older adults: recent advances and new directions in clinical practice and research. World Psychiatry, 21(3), 336–363.



Mental Health of the LGBTQ+ Community

Members of the LGBTQ+ community frequently experience stigma, discrimination, neglect, exclusion, social isolation, and marginalization.⁷ They may also experience rejection from their family and friends.⁸ Moreover, LGBTQ+ individuals are statistically more likely to experience trauma such as physical or sexual abuse and struggle with addiction and substance abuse, which can further exacerbate their mental health problems and force them into a cycle of harmful coping mechanisms.⁹

The American Psychiatric Association, through a review conducted by the Division of Diversity and Health Equity and the Council on Minority Mental Health and Health Disparities¹⁰, identified several factors that may contribute to depression and other mental health issues. The findings of the review are as follows:

- LGBTQ+ individuals are more than twice as likely as heterosexual men and women to experience a mental health disorder at some point.
- LGBTQ+ individuals are 2.5 times more likely than heterosexual individuals to suffer from depression, anxiety, and substance misuse.
- Women who identify as lesbian/bisexual are more than twice as likely as heterosexual women to engage in heavy drinking in the past month
- Transgender individuals who identify as African American/black, Hispanic/Latino, American Indian/Alaska Native, or multiracial/mixed race are at an increased risk of suicide attempts compared to white transgender individuals.
- LGBTQ+ individuals utilize mental health services more than their heterosexual counterparts.
- The suicide attempt rate among lesbian, gay, and bisexual youth is four times higher than that among heterosexual youth, while the suicide attempt rate among questioning youth is two times higher than that among their heterosexual counterparts.

Mental Health of Older LGBTQ+ Adults

Research indicates that older LGBTQ+ adults tend to have higher rates of physical illnesses and adverse psychosocial circumstances than the general population of older adults. ¹¹ Many of these conditions have clear psychiatric associations. For instance, older lesbian and bisexual women report higher rates of

⁷ Ibid.

⁸ Medina-Martínez, J., Saus-Ortega, C., Sánchez-Lorente, M. M., Sosa-Palanca, E. M., García-Martínez, P., & Mármol-López, M. I. (2021). Health inequities in LGBT people and nursing interventions to reduce them: a systematic review. International Journal of Environmental Research and Public Health, 18(22), 11801.

⁹ Ibid.

 $^{^{10}} www.psychiatry.org/File\%\,20 Library/Psychiatrists/Cultural-Competency/Mental-Health-Disparities/Mental-Health-Facts-for-LGBTQ.pdf$

¹¹ Yarns, B. C., Abrams, J. M., Meeks, T. W., & Sewell, D. D. (2016). The mental health of older LGBT adults. Current psychiatry reports, 18, 1-11.



obesity and cardiovascular risk than the general population of older females.¹² This is especially concerning given the growing body of scientific evidence linking poor vascular health with increased risk of specific types of dementia, including Alzheimer's and vascular dementia.¹³ King and colleagues¹⁴ pointed to ageism, gender-based discrimination, harassment and violence, and unfriendly policies and services as major factors contributing to mental health distress among older LGBTQ+ adults¹⁵. Further, Hash and Rogers¹⁶ identified other unique stressors experienced by this population such as lifelong discrimination in healthcare, caregiving, retirement policies, and end-of-life decisions, which has contributed to increased stress, avoidance of preventative healthcare, and decreased access to health and mental healthcare among senior adults.

The Mental Health Needs of the LGBTQ+ in Puerto Rico

There is a scarcity of research conducted in Puerto Rico on the mental health of LGBTQ+ adults over the age of 50. However, there is no reason to doubt that the issues faced by senior LGBTQ+ adults in the United States are applicable to the life experiences of their Puerto Rican counterparts. The existing literature documents that the LGBTQ+ community on the island of Puerto Rico experiences high levels of homophobia and extreme violence.

In a comprehensive needs assessment study conducted by Canino and colleagues¹⁷ on mental health and substance use disorders as well as service utilization among adults in Puerto Rico, it was revealed that individuals between 46 and 64 years of age exhibit higher rates of serious mental illness (SMI) compared to other age groups. The study further highlighted that approximately 4.3% of adults in Puerto Rico falling within this age bracket meet the criteria for SMI, with 2.5% meeting the criteria for a serious mood disorder and 3.5% for severe anxiety disorder.

Bauermeiter and colleagues¹⁸ found that, in a sample of 61 gay and bisexual adolescents, 45% reported high levels of depression. Using the Patient Health Questionnaire-9, they found that, in a sample of 192 LGBTQ+ participants from Puerto Rico, 23.4% presented mild depression, 12.5% presented moderate depression, 6.3% presented moderately severe depression, and 6.3% presented severe depression. Further, approximately one in four participants presented suicidal ideations. Additionally, they examined whether or not having a partner served as a protective factor for depression and suicidal ideation, finding that

¹² Rizer, A. M., Mauery, D. R., Haynes, S. G., Couser, B., & Gruman, C. (2015). Challenges in intervention research for lesbian and bisexual women. LGBT Health, 2(2), 105–112.

¹³ Kalaria, R. (2002). Similarities between Alzheimer's disease and vascular dementia. Journal of the Neurological Sciences.

¹⁴ Richardson, V. E., & King, S. D. (2017). Mental health for older LGBT adults. Annual Review of Gerontology and Geriatrics, 37(1), 59–75. On gender identity

¹⁵ Ibid.

¹⁶ Hash, K. M., & Rogers, A. (2017). Intro. to LGBT aging. Annual Review of Gerontology and Geriatrics, 37(1), 1

¹⁷ https://estadisticas.pr/files/BibliotecaVirtual/estadisticas/biblioteca/ASSMCA/ASSMCA HS 2002.pdf

¹⁸ Bauermeister, J. A., Morales, M., Seda, G., & Gonzalez-Rivera, M. (2007). Sexual prejudice among Puerto Rican young adults. Journal of Homosexuality, 53(4), 135–161.



having a partner reduced the probability of suicidal ideation. The mean age of the participants was 34.1 years.

Another issue facing the LGBTQ+ community is the high rate of suicide among their peers. Although the island has the third lowest rate of suicide in the nation (approximately 8.1 per 100,000 inhabitants were reported to have died by suicide from 2000 to 2021, according to Departamento de Salud, 2021), ¹⁹ LGBTQ+ community leaders asserted that the prevalence is much higher. ²⁰ They posit that in Puerto Rico, the reported number of suicide fatalities among the LGBTQ+ community is likely underestimated for two reasons. First, the sexual orientation of suicide victims is not consistently reported, which contributes to a lack of accurate data. Second, the stigma surrounding deaths by suicide leads the victim's family and friends to request authorities to not disclose the cause of death as suicide, further obscuring the true extent of the issue.

The health needs assessment study conducted by Waves Ahead²¹ on the older LGBTQ+ population in Puerto Rico living with HIV found that 23.4% of the participants presented mild depression, 12.5% presented moderate depression, 6.3% presented moderately severe depression, 6.3% presented severe depression, and 24.5% presented suicidal ideations. To the best of our knowledge, no other study has focused on the mental health needs of older LGBTQ+ adults on the island.

Mental Health Services in Puerto Rico

The island boasts a robust network of public and private mental health facilities that offer a range of care options, including outpatient services such as intensive outpatient programs, partial hospitalization programs, community integration programs/extended care, psychiatric assertive community treatment, and residential levels of care.²² Furthermore, administrative and judicial safeguards are in place to safeguard access to mental health services and protect the basic human rights of individuals seeking treatment for their psychological well-being.

Both private insurance companies and the government-funded insurance program Medicaid covers mental health insurance in Puerto Rico.²³ However, not all insurance plans cover all aspects of mental health treatment. Mental health conditions in Puerto Rico are classified as chronic illnesses requiring a 20% copayment, which can be reduced for those with low income. Although insurers are legally required to provide coverage for a minimum of 30 visits per year to a psychiatrist or psychologist for qualifying conditions, not all services or specialties may be covered. Besides, the capacity of mental health services may be affected by the economic situation on the island.

 $^{^{19}} https://estadisticas.pr/files/Inventario/publicaciones/Informe\%20 Anual\%20 Suicidios\%20 en\%20 Puerto\%20 Rico\%20 - \%202020.pdf$

²⁰ Personal communication, Dr. Dasiel Baez, January 17, 2023

²¹ https://wavesahead.org/wp-content/uploads

https://www.samhsa.gov/data/sites/default/files/reports/rpt27971/Puerto%20Rico%202019%20URS%20Output%20Tables/Puerto%20Rico%202019%20URS%20Output%20Tables.pdf
 Ibid.



METHODS

The present needs assessment was conducted by Waves Ahead, Inc., in collaboration with John Snow, Inc. (JSI), a public health consulting firm based in Boston, MA. The study aimed to identify mental health needs of older adults, address existing inequalities related to mental health experienced by Puerto Rican LGBTQ+ people aged 50 and above, and establish and disseminate future policies, community actions, and research activities.

The research was conducted in four distinct phases: survey design, survey distribution/data collection, data analysis, and dissemination. It was a collaborative effort that demanded unwavering teamwork and meticulous coordination with a clear understanding of the study's objectives and goals among all team members.

Phase 1: Survey Design

During this first phase, the teams collaborated to create an instrument that would accurately identify the mental health needs of the target population. For instance, the anxiety, depression, and trauma items were based on scientifically validated instruments such as the Patient Health Questionnaire-2²⁴ and the CAGE.²⁵ The team members participated in numerous reviews and discussions to ensure that the questions were sensitive, inclusive, and relevant to the participants and their experiences.

Once the instrument was finalized, the teams sought and obtained approval from the Institutional Review Board (IRB), which required careful attention to detail and extensive collaboration between Waves Ahead and JSI. The teams worked closely with the IRB to ensure that all ethical guidelines and regulations were followed to protect the participants' privacy and safety.

Another important aspect of this phase was the digitization of the instrument. Waves Ahead and JSI had to ensure that the survey was easy to access and complete for the participants. Instrument approval was granted after it was confirmed that it met the appropriate standards, after which the survey was made available to the target population through open links. The teams had to work closely to ensure that the research objectives were clear, the questions were relevant and sensitive, and the survey was easily accessible to the participants. This phase laid the foundation for the successful implementation of the study and was critical in ensuring its accuracy and success.

Phase 2: Survey Distribution and Data Collection

Waves Ahead and JSI worked together to ensure effective survey distribution to the target population. It was a labor of love as they developed promotional materials, identified suitable venues, and made visits to spread the word far and wide. Recruitment was a key point of focus, and they worked tirelessly to ensure that the questionnaire administration, outreach strategies (such as PRIDE Month), and social media campaigns were impactful. Moreover, interviews were conducted with utmost sensitivity and care.

²⁴ https://www.hiv.uw.edu/page/mental-health-screening/phq-2

²⁵ https://www.hiv.uw.edu/page/substance-use/cage



Unfortunately, Hurricane Fiona made landfall in Puerto Rico on September 19, 2022, causing some dates to shift. This required flexibility and careful planning by the Waves Ahead and JSI teams to ensure that the project stayed on track and that all necessary tasks were completed on time. The teams had to work together to make certain that the plan for distributing the survey was implemented effectively, recruitment was carried out correctly, and unforeseen circumstances were dealt with appropriately. The success of this phase laid the foundation for the third phase of the project and helped in meeting the research objectives.

Phase 3: Data Analysis

The data analysis phase of the project was pivotal in thoroughly examining and interpreting the data collected during the second phase. JSI took the lead in analyzing the obtained data thoroughly and accurately. This was a significant undertaking given the complexity of the study and the sheer volume of data that needed to be analyzed. The needs assessment questionnaire ended with 506 completed surveys and 20 interviews. This sample was found to be unique as the participants were well-educated, did not experience language problems, and reported having health insurance.

Phase 4: Dissemination

The final phase of the research project was the dissemination of the study's findings to allow it to reach a wide audience and ensure the necessary steps are taken to address the mental health needs of the older LGBTQ+ population in Puerto Rico. Waves Ahead collaborated with policymakers, community organizations, and researchers, as well as identified and visited spaces for diffusion, to ensure that this report remains available to those who could utilize it to make a difference.

The present study on the mental health needs and inequalities among the older LGBTQ+ population in Puerto Rico is of significant importance. It aimed to identify the gaps present in the mental health services available in Puerto Rico and address the issues faced by its LGBTQ+ community. The findings of this study are expected to pave the way for future policies, community actions, and research activities to improve the mental health outcomes of this marginalized population.

RESULTS

Demographic Characteristics of Survey Participants

A total of 462 eligible participants completed the survey. The eligibility criteria included being at least 50 years of age; living in Puerto Rico at least six months out of the year; identifying as LGBTQ+; and providing consent to be surveyed.

The typical demographic profile of the survey participant was that of a white, Hispanic, single gay male with an average age of 58 who was based in the metropolitan region of Puerto Rico. The participants' personal characteristics are summarized in Figure 1.



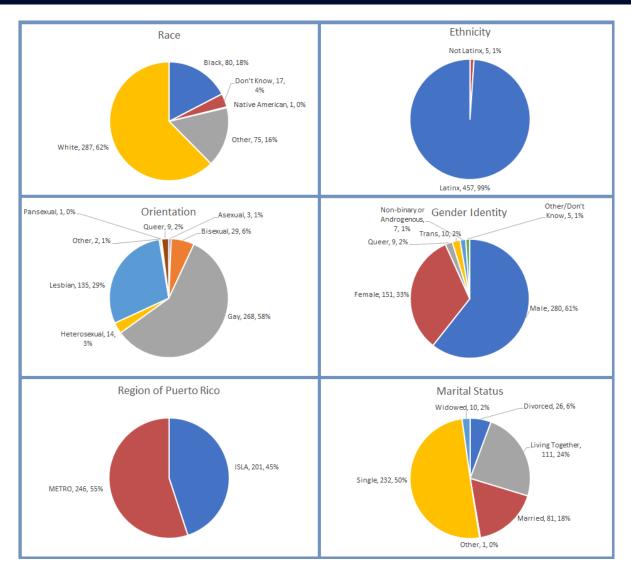


Figure 1. Personal characteristics of the Waves Ahead survey participants

Most participants reported having at least a bachelor's degree and belonging to the moderate-level income group (defined as earning between \$15,000 and \$44,999 annually). The employment status of the participants was relatively varied. Nearly everyone reported having health insurance (see Figure 2).



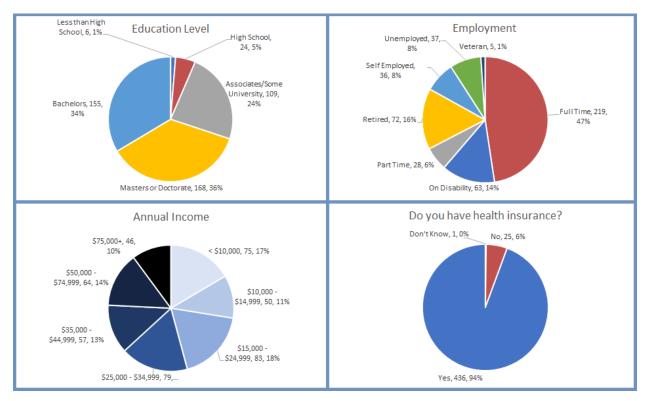


Figure 2. Education, employment, income, and health insurance of the participants

Mental Health Among the Survey Participants

The survey participants were asked whether they were experiencing any mental health concerns, how frequently they felt discriminated against, whether they experienced suicidal thoughts, how many days in the past month did their health have an impact on their normal activities, and whether they had experienced a traumatic event in the past. Finally, the participants were asked a series of questions about anxiety and depression and given a score for each; the participants with a score of three or greater were considered to have the respective condition. Figure 3 summarizes the mental health of the participants.

Most participants did not report experiencing discrimination often. Approximately 20% reported having suicidal thoughts in the past 12 months, and nearly half reported having had a traumatic experience. On average, the participants reported that they were unable to perform normal activities five out of the last 30 days due to health-related issues.



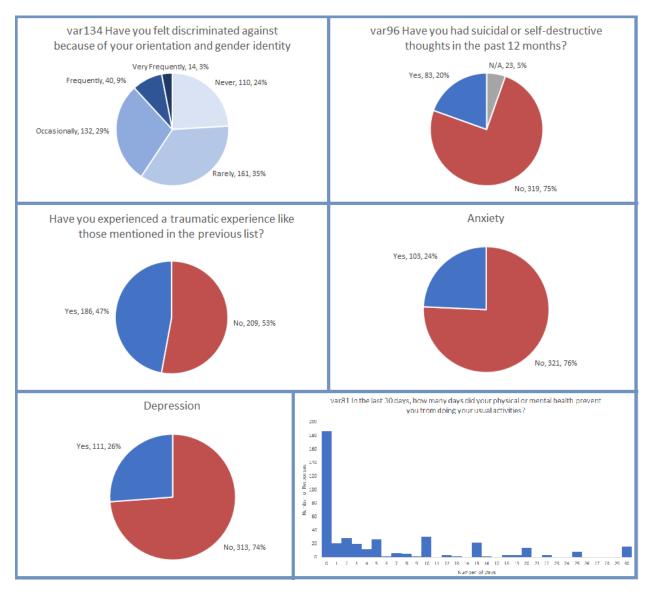


Figure 3. The mental health of the participants

Mental Health Based on Demographic Factors

A series of statistical tests were performed to determine whether the participants' mental health varied based on demographic factors. Mental health was assessed in two ways. First, the participants were flagged if they experienced at least one of the following: depression, anxiety, or suicidal thoughts. Second, the participants were asked for how many days out of the previous 30 were they unable to perform normal activities due to their health. A summary of the tests and their results is presented in Tables 1 and 2. Due to the large number of tests performed, statistical significance was adjusted using the Bonferroni correction ($\alpha = 0.05/22 = 0.0023$).



Table 1. Association between demographic variables and depression, anxiety, and suicidal thoughts

Variable	Depression, Anxiety, Suicidality	Results	Conclusion
Age	Mann–Whitney U test	$\chi^2 = 9.9225$, DF = 1 p = 0.0016	Significantly associated
Place of birth	Chi-squared test for independence	$\chi^2 = 0.6421$, DF = 3 p = 0.8867	Not significantly associated
Metro vs. Isla	Chi-squared test for independence	$\chi^2 = 0.2353$, DF = 1 p = 0.6276	Not significantly associated
Race	Chi-squared test for independence	$\chi^2 = 1.0438$, DF = 1 p = 0.5934	Not significantly associated
Gender at birth	Chi-squared test for independence	$\chi^2 = 0.0035$, DF = 1 p = 0.9526	Not significantly associated
Sexual orientation	Chi-squared test for Independence	$\chi^2 = 5.8351$, DF = 3 p = 0.1199	Not significantly associated
Relationship status	Fisher's exact test	p = 0.2076	Not significantly associated
Education	Spearman's rank correlation coefficient	Spearman $\rho = -0.1292$ p = 0.0077	Not significantly associated
Employment	Chi-squared test for independence	$\chi^2 = 17.8784$, DF = 5 p = 0.0031	Not significantly associated
Income	Chi-squared test for independence	$\chi^2 = 15.6699$, DF = 6 p = 0.0156	Not significantly associated



Table 2. Association between demographic variables and number of days where normal activities were impacted by health

Variable	Days Impacted by Health	Results	Conclusion
Age	Pearson's rank correlation coefficient	Pearson $\rho = -0.05741$ p = 0.2467	Not significantly associated
Place of Birth	Kruskal–Wallis test	$\chi^2 = 4.2779$, DF = 3 p = 0.2330	Not significantly associated
Metro vs Isla	Mann–Whitney U test	U = 1.7058, p = 0.0880	Not significantly associated
Race	Kruskal–Wallis test	$\chi^2 = 0.3815$, DF =2 p = 0.8263	Not significantly associated
Gender at birth	Mann–Whitney U test	U =0.2860, p = 0.7749	Not significantly associated
Sexual orientation	Kruskal–Wallis test	$\chi^2 = 2.7456$, DF = 3 p = 0.4325	Not significantly associated
Relationship status	Mann–Whitney test	U = -1.45, p = 0.1477	Not significantly associated
Education	Kruskal–Wallis test	$\chi^2 = 43.8485$, DF = 4 p = 0.0002	Significantly associated
Employment	Kruskal–Wallis test	$\chi^2 = 14.7322$, DF = 5 p = 0.0116	Not significantly associated
Income	Mann–Whitney test	U = -3.4462, p = 0.0007	Significantly associated

The results indicated that age was significantly associated with anxiety, depression, or suicidal thoughts. The participants who experienced depression, anxiety, and/or suicidal thoughts had a median age of 56, whereas the median age for participants without these conditions was 58. Education and income were also significantly associated with the number of days where the participants' normal activities were impacted



by their health. Further, post hoc testing suggested that those with a bachelor's degree or a higher qualification had fewer "off" days than those with only a college or associate's degree. Participants with at least a bachelor's degree had a median of three "off" days in the past month, whereas the median for those with only a college or an associate's degree was six "off" days. Similarly, those with a high-income level (defined as earning \$50,000 or above annually) experienced a median of two "off" days, whereas those with a low-income level (defined as earning less than \$15,000 annually) had a median of five "off" days.

Receiving Care

Finally, we attempted to determine whether those in distress received the care they needed by analyzing whether those who experienced anxiety, depression, or suicidal thoughts received care compared to those without these conditions. This was done using a chi-squared test of independence. It was found that those with one of these conditions were more likely to receive care (20.71% vs. 11.06%, χ^2 = 65.1752 over 1 degree of freedom, p < 0.0001). Further, we also evaluated whether the number of poor health days was associated with receiving care by using a Mann–Whitney U test. It was found that the participants who experienced more days of poor health were more likely to receive care (U = 34418.50, p < 0.0001). Additionally, the participants who received care were found to have a median of seven days of poor health, as opposed to the two days for those who did not receive care.

QUALITATIVE DATA ANALYSIS

The themes uncovered during the analysis of the interviews conducted with older LGBTQ+ adults in Puerto Rico are loosely organized around the components of the help-seeking behavior pathway. ²⁶ This pathway outlines the series of actions an individual takes when seeking help for a problem or concern. This pathway typically involves recognizing, acknowledging, or defining the problem or issue, deciding to seek help, identifying potential sources of help, and receiving appropriate support or assistance. The narratives presented below should help contextualize the findings obtained from the quantitative results in the previous section. Understanding the help-seeking behavior pathway can help individuals and professionals alike identify ways to offer better support to those in need and reduce the barriers that prevent them from seeking help. The analysis took the life context and experiences of the participants into account. The participants were LGBTQ+ individuals over the age of 50 who reported having mental health insurance to cover their expenses. Moreover, they experienced no language barriers and were seasoned users of the mental health system of Puerto Rico.

Definition of Mental Health

The interviews began with the question: "How do you define mental health?" This question served as an icebreaker to make the participants more comfortable and put them at ease. In response, the participants

²⁶ White, M. M., Clough, B. A., & Casey, L. M. (2018). What do help-seeking measures assess? Building a conceptualization framework for help-seeking intentions through a systematic review of measure content. Clinical psychology review, 59, 61-77.



provided a wide array of viewpoints. Some defined it as a healthy relationship between the self, the environment, the social context, and society at large. Conversely, others perceived mental health in terms of personal functioning, such as emotions, human potential, and well-being

Table 3. The participants' definitions of mental health

Theme	Sample quote
A healthy relationship between the self and the environment (i.e., a sense of responsibility to do things you do not necessarily want to do)	"Enjoy what you like to do and enjoy everything, the animals, nature, all the things you have to handle and even those you don't want to do, either."
A healthy relationship between the self and the social context	"A state of well-being with oneself and with the environment, with the people with whom one shares and with the activities that one wants to do and with which one does. Mental health is feeling good with the day to day, with when you get up; with the activities that one does and when one goes to bed, feeling pleased, pleased, in gratitude for the fact that it is one more day than one has."
Relation to society	"Mental health, for me, which is the basis of a healthy society."
Personal functioning	"Well, he can be a normal, sane person, although we are all normal, but that he is sane, that he can speak for himself Mental health can be, thus [unintelligible 00:30] an ability to make correct or accepted decisions, to be able to live healthily with other people, to do what one wants, a number of things that do not affect others, that do not affect you like this"
Emotions/goals	"For me, mental health is the ability to manage my emotions in the most intelligent way possible to achieve all my goals and feel happy."
Well-being	"For me, mental health is living in well-being, accepting oneself as one is, knowing that not all of us are the same and that after we have well-being, mental health helps us with that at work, personal relationships, business relationships, couple."
State of well-being	"I define it as peace and quiet."



Perceptions Regarding Mental Health Services in Puerto Rico

Having described how the participants defined mental health, we now discuss how they perceived the mental health services offered in Puerto Rico in the form of the places they visited to seek mental health support. The participants discussed the various challenges facing Puerto Rico's mental health system, the emphasis placed on medications, and the complexity of navigating the system, particularly for those unfamiliar with the healthcare system. Notably, the participants expressed satisfaction with their individual providers and health insurance coverage.

Table 4. The participants' perceptions regarding mental health services in Puerto Rico

Theme	Sample quote
The system faces several challenges related to social work, defining the LGBTQ+ community, and government support	P: "I think that in Puerto Rico there are many mental health problems that are not being addressed for multiple reasons that we all know. But I'm interested in getting involved in some issue where we can help people." I: What kind of reasons can they be? P: "Well, lack of social work personnel, let's say, of people prepared with knowledge of what the LGBT community is and all that that entails for trans people. And the government has poor support for us. There are many mental barriers in the majority of the legislature, in the senate. They do not open to knowledge."
Emphasis on medications with a preference for alternative service modalities	"Yes, because here, look, here mental health is very poor. Mental health here is very poor and if we seek the service, they want to give us medicine quickly, tablets. And I am a person who does not believe in that. I do not believe in that. I did not want to take any tablets, not even for the depression that I had from the death of my friend."
Difficult to navigate	"No, because, see, since I live in Puerto Rico, I use MCS for everything and in Puerto Rico, I haven't been able to receive much help psychologically, because it's rough trying to navigate the whole system down here."
Satisfaction with individual providers and the importance of empathetic providers	"[Name of therapist]. She was very empathetic and if anything helped me to accept myself and give me confidence, it was with the therapies that you gave from the group with which girl."



Theme			Sample quote
Satisfaction insurance	with	health	"Well, until now, it has covered me quite a bit, all the appointments, everything I've had they've given me they haven't denied me anything until now, thank God." "I had surgery on my hip, my knee, for asthma that I have had, for diabetes Everything up to now has been covered for me All the medications, everything is covered for me."

Therapists play a critical role in the lives of older adults by providing them with support and guidance as they navigate life's challenges. Moreover, they assist older LGBTQ+ adults disclose their identity by coming out of the closet, which is a process that can be particularly difficult for individuals in this age group.

Table 5. The participants' experiences with their therapists

Theme	Sample quote
A therapist's role in helping individuals come out of the closet	"I went looking for a therapist and started. And I began the process of how I learned to come out of the closet. So, that's when I learned a little more about everything that it entailed He couldn't understand what my desire was. I was a grown man, almost 30 years old, and so on. And nothing. He sent me to go to the center again to a group It was a support group. When I got there, it was like dealing with coming out in the group. I remember how now. I feel it seems like"

The participants reported having a strong preference for LGBTQ+ service providers and expressed their willingness to go to considerable lengths to procure them.

Table 6. The participants' preference for LGBTQ+ therapists

Theme	Sample quote
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The rationale for wanting a therapist who identifies as gay	"I told him, 'OK, I'll explain why. Basically, I want someone who has walked my shoes, who hasn't borrowed them. Understands? I don't need you to tell me that you have two bachelor's degrees, three master's degrees in treating homosexual people. I need that when I sit with you, you identify with my problem because you have gone through it; not because he had a patient'"
Efforts to find an LGBTQ+ therapist	"I feel homosexual because I am homosexual. And there he understood it and he told me 'It's going to be very difficult for you' he told me. I told him 'I know. But I have a list.' I also told him 'I have a list' and called hundreds. Little by little I started knowing until I found out about the place here. When I came here, I had already come with you"

Thus far, we have provided examples of the participants' definitions of mental health, their perceptions of the mental health system of Puerto Rico, their relationships with their service providers, and their experiences with their therapists. In the next section, we turn to the underlying causes of mental health disorders, which is followed by an exploration of how the participants coped with their distress.

Underlying Causes of Mental Health Disorders

As stated in the introduction, the LGBTQ+ community and the elderly have unique risk factors. The family context can be a source of distress for LGBTQ+ individuals as their family may show a lack of acceptance of their sexual orientation or gender identity. Moreover, the family context can also be a source of distress when LGBTQ+ adults become their parents' caregivers. The participants in this study identified their families as a source of distress because of these factors. Furthermore, finances and homelessness were identified as significant sources of stress for the participants. Some of the participants also reported having experienced homelessness. Additionally, the participants' distress caused by mental health stigma was also compounded by the experience of homophobia (See Table 7).

Table 7. Underlying causes of mental health disorders among the participants

Theme	Sample quote
Family and sexual orientation	"Because for my mother it was a punishment to identify that, at an early age, I had



	homosexual inclinations. And for her, that was because as far as I know there is no one else in the family. And from there, I am receiving, that I did not understand why she took me there. But nothing, when one is a child, one has to obey."
Acceptance	"So, essentially, the family, because we're gay, sometimes, we're not accepted. There are some who accept us, but there are others who don't. There is still for this time prejudice. I say we have not yet freed ourselves, with all the samesex marriage that has been accepted, but we have not freed ourselves with those taboos and those prejudices."
Stress experienced as a caretaker of older parents and sick relatives	" is an old man; 88 years old, work, and leave work, come to the hospital to take care of my brother and deal with matters, plus, take care of my father."
Financial stress	"Social security does not give. And now with this Covid, well, there are many people who have affected him mentally. You know? The cost of living has also affected us, too, the cost of food, the cost of gasoline, loneliness."
The experience of being mentally ill and homeless	"See, four years before I moved here- and I moved here six and a half years ago—I was homeless. So, for four years, I had to do without medicine, cold turkey. Medicine can do some good and it can do some bad. At the time, I was on a pill Elavil, and it hurt. The first time I took it, it was fine. All of a sudden about a half hour later, I started shaking and shivering. I thought I had a cold. It was the pill that did this. And then, it did it the second day. Then, after that, it didn't. but, after that, I was addicted to that pill. If I did not take that pill, I can go 24 hours without sleep."

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The stigma associated with mental health is compounded by homophobia	" Then, that you have now, and there really was no one to talk about it, because you were afraid to even admit you were gay. And then, once you start seeing them, you have to put up with the social stigma from people who think there's something dangerous about you because you're seeing a psychiatrist. And believe me, I wasn't the dangerous one. " I was scared. I was afraid that someone would see me enter. I was afraid that there was someone Unbelievable because everyone who was there was openly gay and lesbian, the ones who work. Those who work, but not necessarily those who go because I, later in the future I went with friends who were waiting for me there - who were not gay. They were waiting for me in the lobby or something."
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Furthermore, loneliness emerged as a pervasive theme during the interviews with the participants.

 Table 8. The participants' experiences of loneliness

Theme	Sample quote
Loneliness accompanied by COVID-19 and financial distress	, 1 1
Loneliness associated with sadness	"But and more adults over 50, older adults who are alone. There is a lot of sadness, there is a lot of lack of will."
Loneliness and mental health	"Why, then, the first time?" Q: "Well, sometimes you feel lonely" "And as I tell you, the mind is treacherous. And when you are alone, you don't know what you think."



Experiencing Distress

In this section, we discuss the participants' reported experiences of distress. It was found that among the participants, distress was mostly associated with depression.

Table 9. The participants' reported experiences of distress

Theme	Sample quote
Experience of depression and how it interacts with life events	"The ability not to be got down; not to cry as often because your life is out of control. When you have depression, chronic, severe depression like me, you don't see life the way other people do. One minor accident in your day can ruin the next two days. It's just it's like it glues itself onto your brain and you're just stuck with these thoughts, then, and when that happens you don't function normally. Sometimes, you'll go without eating, even if you have food because your brain will no longer listen to your stomach. It can be very disruptive."
Depression and sexual orientation	"I always felt the need, even as a child. I knew that I was different. My family hated me. You're gay. You have to die. But, you could never and again, this was in the '60s. They did not"

Suicide emerged as a notable theme during the interviews. Although none of the participants identified as survivors of suicide, some reported having lost relatives and friends to suicide. One participant reported having suicidal ideation, while others reported instances of death by suicide that occurred in their social networks.

Table 10. The participants' experiences of suicide in their social network

Theme	Sample quote
Death by suicide in the participants' social network	P: "Well, there are like three of my friends who have died like this One cut his wrists. But I knew he was a little sick, but I didn't know it was such a big deal Carlos, one of I tell him Carlos because it's that. It is one of my children, it was"
	P: "Bueno, son como tres amistades mías que han muerto así Uno, se corto las venas Pero yo sabia que estaba un poquito malito, pero no sabia



	que era para tanto Carlos, uno de Le digo Carlos porque es que es uno de mis nenes, estuvo"
Death by suicide in the participants' social network	"Well, we also have a person that we had to admit once to I'm not going to say her name, but a friend of mine, we had to admit her because she got so mad that she jumped onto the balcony"
Death by suicide in the participants' social network	"Then with my brother, unfortunately, my brother also committed suicide due to perhaps personal situations."

The final theme reported in this section pertains to the participants' methods of coping with and managing distress. The participants reported that they coped with distress with the help of spirituality, religious practices, online chats, and smoking.

Table 11. The means used by the participants to cope with their distress

Theme	Sample quote
Spirituality	"But that I suffered it with my prayers, my yoga and with the therapy that I took with you, the therapy that I took with the psychologist and on YouTube that I searched a lot for the subject of death."
Religious practices	"Always. Always. Yes. I always maintain my life of prayer, reading the Bible, attending the church."
Chatting	"We have a chat. We communicate weekly. We meet one month yes, one month no or every two or three months. With the pandemic, well, obviously we didn't meet Throughout the year of the pandemic, in the crisis we didn't meet, but we kept chatting and communicating."
Smoking	"I smoke cigarettes. I smoke a cigarette and that relieves my stress."

DISCUSSION

The present study makes a significant contribution to the literature on Latinx LGBTQ+ health by shedding light on the mental health and social support needs of older Puerto Rican adults aged 50 or above who identify as LGBTQ+. The results of this study are particularly noteworthy because they emphasize the high prevalence of depression, anxiety, and other mental health issues experienced by this population.

A total of 462 individuals met the eligibility criteria and completed our survey. This sample consisted of Puerto Rican residents who identify as LGBTQ+, were at least 50 years of age, and provided their consent



for participation in the study. As previously stated, most participants reported possessing at least a bachelor's degree and belonging to a moderate-level income group. Further, they had a relatively varied employment status. Additionally, almost all participants reported having health insurance coverage. These demographic characteristics provide important context for interpreting the findings of the study. Moreover, they suggest that the sample was relatively well-educated, financially stable, and had access to healthcare. However, it is important to note that these characteristics may not be representative of the broader older LGBTQ+ adult population in Puerto Rico, which should be taken into consideration when generalizing the findings.

According to the quantitative data obtained from the study, most participants did not report experiencing discrimination often. However, a concerning finding was that approximately 20% of participants reported having suicidal thoughts over the past 12 months, and nearly half reported having been through a traumatic experience. Additionally, on average, the participants reported being unable to perform their normal activities for five out of the last 30 days due to health-related reasons.

Moreover, statistical analyses revealed that age was significantly associated with anxiety, depression, or suicidal thoughts, with younger participants being more likely to report these mental health challenges. Education and income were also significantly associated with the number of days where the participants' normal activities were impacted by their health, as the participants with higher levels of education and income reported experiencing fewer days of being unable to perform their normal activities due to health-related reasons.

Interestingly, those experiencing more days of poor health were more likely to receive care, which suggests that they were more aware of their health needs and sought out care as a result. These findings have important implications for healthcare providers and policymakers in Puerto Rico as they highlight the need to address mental health challenges and health disparities among older LGBTQ+ adults, particularly those with lower levels of education and income.

As regards the qualitative data, the interviews began with the participants answering an icebreaker question about how they defined mental health, the responses to which varied greatly. Some participants defined mental health in terms of personal functioning, whereas others anchored their definition to the environment, the social context, and society at large.

Afterward, the participants discussed the challenges of navigating the healthcare system, which are particularly relevant for those who are unfamiliar with the system. They also revealed that the system emphasizes medications. Despite these challenges, the participants expressed satisfaction with their individual providers and their health insurance coverage. The therapists were found to play a critical role in the lives of these older adults by providing support and guidance as they navigate life's challenges. They also assisted older adults in coming out of the closet, a process that can be particularly difficult for individuals in this age group.

It was found that the participants had a strong preference for LGBTQ+ service providers and were willing to go to considerable lengths to procure them. The underlying causes of mental health disorders for this



population include the family context. Additionally, some participants reported having experienced homelessness. The mental health stigma faced by the participants was compounded by the experience of homophobia.

Loneliness emerged as a pervasive theme during the interviews. It was found that distress was mostly associated with depression. Although none of the participants reported being survivors of suicide, some reported having lost relatives and friends to suicide. Some coping strategies mentioned by the participants included spirituality, religious practices, online chats, and smoking.

These findings are both compelling and urgent, as they emphasize the need for tailored and targeted mental health services that can meet the complex and multifaceted needs of older LGBTQ+ adults. Despite the absence of certain challenges such as linguistic barriers, insurance limitations, or racial/ethnic prejudice, the situation concerning older LGBTQ+ adults residing in Puerto Rico is still disquieting and can be compared to the experiences of older LGBTQ+ individuals in other parts of the United States.

Indeed, the implications of these results are far-reaching and profound, as they point to the need for innovative and responsive approaches to mental healthcare that consider the unique challenges and experiences of this population. As such, this study represents a vital contribution to the field, providing a strong foundation for future research and practice aimed at improving the mental health and well-being of older adults who identify as LGBTQ+.

The training of professionals on issues related to LGBTQ+ individuals and older adults can be a critical step toward the development of more comprehensive services for LGBTQ+ seniors. The present study's findings suggest that such training can facilitate the creation of a range of services that meet the intersectional needs of this population. These services must be diverse in their scope to accommodate the various identities and experiences of older adults. By providing a wide array of services that cater to the specific needs of LGBTQ+ seniors, we can ensure that they receive the care and support they require to lead fulfilling lives. Therefore, policymakers and service providers must prioritize the development of such services and continue to invest in training programs that empower professionals to provide competent care to this population.

Services for LGBTQ+ older adults should not be based on a one-size-fits-all approach; rather, healthcare professionals should offer a diverse and comprehensive range of services that can address the intersectional needs of older adults. This study emphasized that older LGBTQ+ adults are a diverse population with unique identities and experiences, which requires tailored services that can cater to their specific needs. Therefore, providing a wide array of services can involve everything from healthcare services and social services to housing support and legal assistance. The complexity of needs among LGBTQ+ seniors means that services must be developed that can address a variety of intersecting factors such as age, gender identity, race, ethnicity, and socioeconomic status. Thus, by offering a range of services, providers can ensure that they are meeting the needs of each older adult as an individual rather than trying to apply a blanket solution that may not be effective.



This needs assessment study, which is the first of its kind conducted in the context of Puerto Rico, provided a stirring perspective on the mental health and social support requirements of older adults, particularly those who identify as LGBTQ+. The findings of this study revealed the alarming prevalence of mental health challenges such as depression, anxiety, and related disorders among the population of older adults. In light of this, it is imperative to tailor mental health services that cater to their unique needs. Further, the study challenged the commonly held assumption that the problems of isolation and depression are solely experienced by older adults residing in specific parts, which highlights the urgency for services and resources to be made available in both settings to address the mental health needs of the elderly populations across all geographic locations.

The qualitative data also shed light on the experiences of older adults who identify as LGBTQ+, highlighting the unique challenges they face related to discrimination, stigma, and lack of access to supportive services. As a result, it is essential to offer training and support for professionals working with this population so that effective and inclusive care can be provided.

Based on the profound insights gained from this study, we strongly advocate for the establishment of customized mental health services that cater to the unique needs of older adults, especially those who identify as LGBTQ+. To fully address the complexities and intersections of these needs, it is imperative to develop a comprehensive range of services that encompass the diverse aspects of necessary mental health and social support. In addition, it is vital to provide training and support to healthcare professionals who work with older adults to ensure they possess the necessary competencies and expertise to offer inclusive care that recognizes the diversity of this population. By implementing these recommendations, we can enhance the well-being and quality of life of older adults, including those who identify as LGBTQ+, and ensure that they receive equitable and optimal care.

Recommendations

- Conduct further research: It is important to understand the specific mental health needs of different sub-groups within the older LGBTQ+ population, such as those who are transgender, bisexual, or of different racial and ethnic backgrounds. Further research can provide more targeted insights into the unique challenges and needs of these sub-groups, thus enabling the development of more customized mental health services.
- Explore different mental health interventions: Explore the effectiveness of different mental health interventions and programs tailored to the needs of older LGBTQ+ adults, such as group therapy, support groups, and teletherapy. By understanding the most effective approaches to care, mental health providers can offer the most appropriate and evidence-based interventions to this population.
- Identify effective programs and practices: Investigate the role of community-based programs and organizations in providing social support and reducing isolation among older LGBTQ+ adults. This can include programs such as community centers, senior centers, and volunteer organizations.



By identifying the most effective programs and practices, we can develop a better understanding of how to address social support needs among this population.

- Address disparities: In the present study, education and income were significantly associated with the number of days where normal activities were impacted by health, with the participants who had higher levels of education and income reporting fewer days of being unable to do their normal activities due to health-related reasons compared to those with lower levels of education and income. Therefore, addressing such disparities can help improve the mental health and well-being of older adults who identify as LGBTQ+.
- Address loneliness: Loneliness emerged as a pervasive theme among the participants in this study, suggesting that it can have a significant impact on mental health. Therefore, developing interventions to address loneliness through, for instance, social support programs, can be beneficial for this population.
- Address mental health stigma: Among this population, mental health stigma is compounded by the
 experience of homophobia. Hence, it is crucial to address mental health stigma to reduce barriers
 to care and improve the overall mental health and well-being of older LGBTQ+ adults.
- Address the family context: The family context can be a source of distress due to the family's lack of acceptance of an LGBTQ+ individual's sexual orientation or gender identity. Addressing this issue can help improve the mental health and well-being of older LGBTQ+ adults.
- Address trauma: Almost half of the participants reported having been through a traumatic
 experience in the past, which can have a significant impact on mental health. Thus, developing
 interventions to address trauma such as trauma-focused therapy can be beneficial for this
 population.
- Develop targeted mental health services: Given the high prevalence of depression, anxiety, and suicidal thoughts among older Puerto Rican LGBTQ+ adults, mental health services should be tailored and targeted toward the specific needs of this population. These services must be comprehensive and account for the multifaceted experiences and challenges of this population.
- Focus on diversity and inclusion: Services for LGBTQ+ older adults should be diverse in scope
 and inclusive to accommodate their various identities and experiences. It is crucial to provide a
 wide array of services that cater to the specific needs of LGBTQ+ seniors, including healthcare
 services, social services, housing support, and other forms of support.
- Increase awareness of available resources: Participants in the study expressed satisfaction with their individual providers and health insurance coverage. However, they also revealed that they face challenges in navigating the system. Therefore, it is crucial to increase awareness regarding available resources and reduce barriers to accessing care for this population.
- Prioritize training for professionals: Healthcare providers and policymakers should prioritize training professionals on issues related to LGBTQ+ individuals and older adults, which would lead



to the development of more comprehensive services for LGBTQ+ seniors. Such training can facilitate the creation of a range of services that meet the intersectional needs of this population.

- Provide a wide array of services: Services for older LGBTQ+ adults should not be based on a one-size-fits-all approach; rather, healthcare professionals should provide a diverse and comprehensive range of services that can address the intersectional needs of older adults. Providing a wide array of services can involve everything from healthcare services and social services to housing support and legal assistance.
- Provide LGBTQ+-friendly services: The participants in this study expressed a strong preference for LGBTQ+ service providers. Therefore, it is crucial to provide LGBTQ+-friendly services to meet the unique needs of this population. By providing inclusive and welcoming services, older LGBTQ+ adults can receive the care and support they require to lead fulfilling lives.
- Develop targeted mental health services: The study's findings highlighted the high prevalence of depression, anxiety, and other mental health issues among older adults in this population. Therefore, tailored and targeted mental health services that consider the unique challenges and experiences of this population must be developed to meet their complex and multifaceted needs.
- Support caregivers and families: The family context can be a source of distress for LGBTQ+ older adults. Therefore, it is essential to provide support for caregivers and families to promote acceptance and reduce stigma.
- Train professionals on issues related to LGBTQ+ individuals and older adults: The training of
 professionals on issues affecting LGBTQ+ individuals and older adults can facilitate the creation
 of a range of services that meet the intersectional needs of this population. Services for LGBTQ+
 older adults should be diverse in their scope to accommodate the various identities and experiences
 of older adults.



LIMITATIONS

The findings of this study must be interpreted in light of its limitations. Let's take as an example recall bias. As the participants were asked to report their past experiences and emotions, there was a possibility that they may not accurately remember the details. Memories can fade or be influenced by various factors over time, leading to inaccuracies in the data collected. This introduced a challenge to the reliability and validity of the study, as the researchers relied on participants' recollections.

Complicating matters further, the data collection process was disrupted by an unexpected natural disaster, Hurricane Fiona. The hurricane made landfall in the nearby region, causing chaos and disruption. Consequently, it became challenging to discern whether the reported trauma, depression, and anxiety issues expressed by the participants were specifically linked to the hurricane or their lived experiences as elderly LGBTQ+ individuals. The confounding effects of the hurricane limited the study's ability to isolate and analyze the true impact of specific factors on the participants' well-being.

Recruitment limitations also presented a significant hurdle for the study. In the middle mountain range of the island, many potential participants lacked access to the internet or a social media presence. This limitation introduced bias and hindered the diversity and representation of the sample. The study's findings might not have been generalizable to the broader population, as the sample did not adequately capture the perspectives of many of those without an internet or social media presence.

The subjective nature of qualitative research also limits interpretations of the qualitative data. The researchers' experiences and knowledge influenced their interpretations, potentially introducing biases into the analysis. Different team members may have interpreted the data differently, leading to variations in the conclusions drawn from the study. This subjectivity limited the objectivity and generalizability of the findings, as the researchers' perspectives influenced the interpretations.

Moreover, the lack of verification posed a challenge to the study. Qualitative research results cannot be easily verified against external standards or scenarios stated by the respondents. The open-ended nature of qualitative research allowed participants to shape the content of the collected data, making it difficult to validate the findings objectively. The researchers had to rely on their judgment and expertise to make sense of the collected information.

Furthermore, investigating causality proved to be difficult in the qualitative research study. While the study provided insights into the relationships and connections between variables, it could not establish causation in a direct and statistically rigorous manner. The qualitative approach was better suited for exploring the complexities and nuances of social issues rather than drawing definitive causal relationships.