



COLLEGE OF PUBLIC HEALTH

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Social Engagement as a Means to Mitigate Mental Health Issues in the Athens Community

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EXECUTIVE SUMMARY

Context

Mental illness is estimated to be the leading cause of disability in the world (Whiteford *et al.*, 2015). In Athens-Clarke County, 36% of households self-reported at least one person in the household had a mental health condition (Athens Wellbeing Project, 2017). Mental health disorders vary in incidence and prevalence and include ailments such as anxiety, depression, schizophrenia, and alcohol and drug dependency, with depression being the most common (NIMH, 2018).

Mental health is determined by a variety of genetic and social determinants (WHO, 2014). While genetic factors cannot be controlled, we can intervene on social and environmental factors. Engaging socially with others is related to social, emotional, and psychological wellbeing and provides an avenue for intervention. Research shows when people interact with each other more frequently, they are less likely to experience depressive symptoms (Min *et al.*, 2016).

While social engagement can improve mental health, barriers to mental health treatment play a role in exacerbating the burden of disease. A study done by the Substance Abuse and Mental Health Services Administration determined that only one third of adolescents with a mental health disorder receive treatment (SAMHSA, 2015). Understanding the role social engagement plays in mental health and the treatment landscape is critical to improving mental health outcomes in our community.

Research Questions

We investigate the role social engagement and barriers to treatment play in mental health in Athens-Clarke County. Using Athens Wellbeing Project household survey data, we developed two primary questions:

1. Is social engagement associated with the prevalence of mental health disorders in Athens-Clarke County?
2. What factors impact access to mental health treatment in Athens-Clarke County?

Key Findings

Controlling for other factors, we found that gathering socially one or more days a week was associated with a 7% decrease in the probability of reporting any mental health disorder in the household among a representative sample of Athens households. In a separate analysis limited to college students, we found weekly social interaction to be particularly important for mental health—those gathering weekly with friends were 21% less likely to experience a mental health disorder.

Additionally, one in four individuals with a mental health condition expressed that they needed treatment in the last year but did not receive it. The most common reasons stated were: affordability issues (48%), and not knowing where to access services (21%). Households with health insurance and those who gathered socially at least weekly were significantly more likely to access treatment.

Recommendations

Based on our analyses, the following policy recommendations are proposed to help address issues of mental health reporting and treatment in our community.

1. Expand opportunities for organized social gatherings.

This can be accomplished using a variety of settings like recreation groups, faith-based organizations, schools, and social interest groups to bring people together on a wide range of topics and interests. Increased external visibility and inclusion in existing groups can expand the levels of social interaction in the Athens community.

2. Educate clients and community members on available resources.

While the largest barrier to seeking mental health treatment was cost, one in five households who needed treatment but did not receive it responded that they did not know what and where the resources were. Providing community members with updated information on mental health treatment options and resources could make quick inroads on this particular problem.

3. Expand access to treatment.

Mental health resources for the county are available to many individuals, but gaps remain between need for services and mental healthcare utilization. Wait lists for behavioral therapy, transportation issues, inconvenient hours of operation, and lack of adequate health insurance or not accepting certain kinds of insurance are all very real barriers to the management of mental health in our community. One key consideration given the demonstrated need for treatment among college students is the short-term nature of mental health treatment available on campus (on-campus counseling is limited to ten sessions or less for University of Georgia students). Regardless of age, race, or socioeconomic status, those experiencing mental health disorders need consistent, affordable, and timely access to behavioral health services in order to manage their condition. Intervention on expanding access to treatment provides the opportunity to improve wellbeing in our community, and to gain a significant return on investment.

INTRODUCTION

In the fall of 2017, a series of policy analysis papers were produced as partial fulfillment of course requirements for the Health Policy Analysis course taught by Dr. Grace Bagwell Adams in the Department of Health Policy and Management, College of Public Health at the University of Georgia. Each of these papers utilized the Athens Wellbeing Project (AWP) household survey data collected in the fall of 2016 through the winter of 2017, in addition to secondary data sources from the U.S. Census Bureau and other state and national databases. The intent of these analyses is to inform policy making at the local level in the Athens-Clarke County Community. Four policy papers were produced from the graduate seminar, covering the following topics: access to mental health services, housing quality and asthma prevalence, the underutilization of food assistance for women and children, and creation of an index to measure wellbeing.

This study examines the relationship between social engagement and mental health diagnoses and treatment access. Mental health disorders are pervasive in our society and affect approximately one in five adults in the United States, as well as in the state of Georgia (NAMI). Using data from the Athens Wellbeing Project, this study aimed to determine if social engagement could lower the burden of mental illness, and what factors contribute to improving access to mental health treatment in Athens-Clarke County. We determined that gathering socially one or more days a week was associated with a 7% decrease in the probability of reporting any mental health disorder in the full sample, and a 21% decrease in the probability among college students. Additionally, having health insurance, gathering socially, and age were all significantly associated with reductions in the likelihood of reporting difficulties in accessing mental health treatment.

This study reinforces the importance of social engagement as it relates to mental health in Athens-Clarke County. It also emphasizes the need for stakeholders to increase opportunities for social connectedness, especially among college students, as well as to educate individuals on where to obtain behavioral health services and to expand access to treatment and counseling for mental health disorders.

MOTIVATION AND RESEARCH QUESTIONS

Mental health disorders vary in incidence and severity and include ailments such as anxiety, depression, schizophrenia, and alcohol and drug dependency, with depression being the most common. Mental illness is pervasive and causes serious harm to individuals, communities, and businesses. According to the World Health Organization, approximately 1 in every 4 individuals will be affected by mental or neurological disorders at some part in their life, and mental illness is projected to be the 2nd largest cause of disability in the world by 2020 (WHO, 2001; Murray and Lopez, 1996).

Mental health is determined by a variety of genetic and social determinants. Social determinants can include the conditions in which people are born, live, work, and age, as well as the health systems they can access (WHO, 2014). While genetic factors cannot be controlled, the social and environmental elements leave much potential for improvement. Social engagement is related to social, emotional, and psychological wellbeing, and has also been used as a major predictor of mental health. Past literature has established that social disconnectedness and perceived isolation are associated with poorer mental

health outcomes, and that community involvement is associated with better mental health outcomes (Cornwell & Waite, 2009).

Barriers to mental health treatment have also played a role in exacerbating the burden of mental health. A study done by the Substance Abuse and Mental Health Services Administration determined that of 27,000 adolescents aged 12-17 with MDE, only 37.1% per year from 2010 to 2014, actually received treatment for their depression within the year prior to being surveyed (SAMHSA, 2015). With such a significant gap in those reporting mental health issues and those receiving services, we have decided to further investigate this trend.

Using these trends and the household-level survey data from the Athens Wellbeing Project (AWP), we developed two primary questions to address in the context of Athens-Clarke County:

1. Is social engagement associated with the prevalence of mental health disorders in Athens-Clarke County?
2. What factors impact access to mental health treatment in Athens-Clarke County?

AWP DATA ANALYSIS

Household survey data from the Athens Wellbeing Project (AWP) was used in this cross-sectional study. The AWP is a collaboration among the Athens-Clarke County Unified Government, Clarke County School District, Athens Area Community Foundation, Family Connection-Communities in Schools, United Way of Northeast Georgia, the Athens Housing Authority, and the University of Georgia. A community-based household survey was designed to collect information about important public health issues in Athens-Clarke county, as well as provide key stakeholders with a snapshot of resource utilization relating to education, public safety, civic vitality, and housing.¹

Survey data were collected in the fall of 2016 through the winter of 2017 using a stratified random sample of all Athens-Clarke County residents, with the 16 Clarke County School District elementary school attendance zones representing individual strata. Four additional strata were created to represent low income and vulnerable populations, including seniors and homeless or transitional families, which might otherwise be under represented in the household sample. In total, 1,354 households completed the survey. The AWP household survey is representative of the total population at the county level. To account for variation in non-response, a sample weight was created to increase the level of representativeness of the survey.

DESCRIPTIVE CHARACTERISTICS OF HOUSEHOLDS REPORTING MENTAL HEALTH DISORDERS

More than one in three households (36%) in this sample of Athens-Clarke County reported at least one person with a diagnosed mental health disorder. We determined that the typical household that

¹ The study protocol was approved by the University of Georgia Institutional Review Board and was deemed exempt from further review meeting non-research criteria (IRB Study ID #00003747).

reported a mental health disorder was Non-Hispanic White, and the respondents generally had higher levels of educational attainment, were covered by private insurance, and were employed.

Other sources have found similar results. A study of self-reported mental disorders done by the Kaiser Family Foundation found these same demographic trends (KFF, 2017), and a 2005 American Journal of Public Health study found that White Americans were more likely to be diagnosed with depressive disorders than African Americans and Mexican Americans (Riolo, Nguyen, Greden, & King, 2005).

QUESTION 1: ASSOCIATION BETWEEN SOCIAL GATHERING AND MENTAL HEALTH REPORTING

In the first part of our study, we performed a multivariate regression analysis to determine if there was a significant relationship between gathering socially and reporting a mental health disorder. We completed an analysis for the full sample, and then did a subanalysis of just college students. The controls included in the model are: gender, age, race, type of insurance, self-reported health status, attending religious gatherings, and college enrollment. This table shows the results of the statistical model, which were significant at the 0.1 level.

Table 1. Marginal Effects of Gathering at Least Weekly on Household Mental Health Reporting.

Variable	Marginal Effect	P-Value
Gathering Weekly (Full Sample)	-7%*	0.085
Gathering Weekly (College Students)	-21%*	0.10

Note: * significant at P≤0.1. All data weighted using probability weights.

For the full sample, participating in a social gathering at least once per week was associated with a 7% lower probability of reporting a mental health disorder in the household. Additionally, the respondent being female was associated with a 7% greater likelihood in reporting, being White was associated with a 21% greater likelihood in reporting, and having poor self-reported health was associated with a 12% lower likelihood of reporting.

Among college students, participating in a social gathering at least once per week was associated with a 21% lower probability of reporting a mental health disorder in the household. The effect is tripled, which suggests that the effect of social gathering is especially important for college students, and the results of social isolation can be more damaging among this group. Again, having a White female respondent with poor self-reported health status was also significantly associated with reporting a mental health disorder in this subsample, but to a higher degree than in the full sample.

QUESTION 2: FACTORS IMPACTING MENTAL HEALTH CARE AND TREATMENT ACCESS

We also wanted to examine barriers to accessing treatment, because this has been a major issue. The results of the descriptive analysis show that almost one in four households reporting a mental health disorder in the sample had difficulty accessing treatment within the past 12 months.

The most common reasons are listed in the table below. Almost half reported that cost was a barrier; many reported that insurance coverage was a problem, and over one-fifth did not know where to obtain services.

Table 2. Barriers to Obtaining Mental Health Services.

Variable	Percent Reporting
Affordability Issues	48%
Insurance Does Not Cover	12%
Insurance Does Not Pay Enough	18%
Did Not Know Where to Get Services	21%

The multivariate analysis determined that those reporting depression and anxiety were significantly more likely to report that they did not obtain treatment when needed. We also discovered that social engagement, health care coverage, and age have potential to be mitigating factors in reporting lack of treatment access. Gathering socially at least weekly was associated with a 4.13% lower likelihood of reporting difficulties accessing mental health treatment, and having health care coverage was associated with a 5.66% lower likelihood. Age also had a small but significant effect that aggregated over time. Each year was associated with a 0.15% lower likelihood of reporting issues with treatment access, which suggests that as we age we are more connected to the health system in general and have more avenues of access.

Table 3. Association between Selected Factors and Reporting Difficulties Accessing Mental Health Treatment.

Variable	Margin	P-value
Depression	0.0925***	0.001
Anxiety	0.0850**	0.005
Weekly Gather	-0.0413**	0.010
Age	0.0015***	0.001
Healthcare Coverage	-0.0566*	0.063

Note: * P ≤ 0.1; ** P ≤ 0.01; *** P ≤ 0.001. All data weighted using probability weights.

Tables illustrating our full results can be found in Appendix 1.

ECONOMIC IMPLICATIONS

Mental health disorders have large, significant economic implications from the individual level to the societal level, so it is critical to improve conditions for individuals living with such illnesses. According to the CDC, the economic burden of mental illness in the United States was about \$300 billion dollars in 2002 and will continue to grow. In our analysis, we focused specifically on the burden related to lost productivity and medical costs of individuals with depression to illustrate the cost of one mental health condition to our community.

One study estimated the total annual costs due to lost productivity to be \$5,914 per person for depression alone (Evans-Lacko & Knapp, 2016). This includes absenteeism and presenteeism, missing work and being unproductive while at work. Another study estimated the medical costs to be \$5,322 per

person per year, which is shared by the individual, their employer, and society (Greenberg, Fournier, Sisitsky, Pike, & Kessler, 2015). Multiplying these values by the 13,490 households with depression in Athens-Clarke County, we get a total cost of over \$150 million per year.

Gathering socially is associated with a 10% lower probability of reporting depression, so the potential savings total to about \$15.2 million for depression alone. Again, these are conservative estimates because they are only related to the effect of social engagement on depression and assume one person in the household is reporting depression. It is just one avenue of intervention for one mental health disorder, and the savings are substantial, which supports the assertion that investing in mental health is imperative to community wellbeing.

RECOMMENDATIONS

Based on our analysis, the following policy recommendations are proposed to help address issues of mental health reporting and treatment in our community.

- 1. Expand opportunities for organized social gatherings.**

This can be accomplished using a variety of settings like recreation groups, faith-based organizations, schools, and social interest groups to bring people together on a wide range of topics and interests. Many of these organizations are already in place and meeting regularly, but increasing the external visibility, openness, and fellowship associated with these groups can create opportunities for new social networks.

- 2. Educate clients and community members on available resources.**

While the largest barrier to seeking mental health was cost, there were several people who responded that they did not know what and where the resources are. This is a particularly straightforward intervention to compile a list of mental health providers, support groups, substance abuse programs, and what the typical insurance plan will cover. These data can help people make more informed decisions about mental health treatment.

- 3. Expand access to treatment.**

The mental health resources for the county are available, but what is causing those gaps between need and service utilization. Money is not the only factor. It may also be due to wait lists, language barriers, transportation issues, or inconvenient hours of operation. We need to think more broadly about what keeps people from getting care. Stigma can also have a large role in health seeking behaviors, so we should make people feel like they will be supported rather than criticized or criminalized for having a mental illness. Regardless of age, race, or socioeconomic status, those experiencing mental health disorders need consistent, affordable, and timely access to behavioral health services in order to manage their condition. Intervention on expanding access to treatment provides the opportunity to improve wellbeing in our community, and to gain a significant return on investment. These questions also present opportunities for further research in this area.

HIGH RISK GROUP: COLLEGE STUDENTS

In our study, college students are a high-risk group for mental health disorders. This includes graduate and undergraduate students. The University of Georgia is built in the same way that many major universities are in terms of mental health: services are built around short term and immediate support for student health because of limited resources. UGA counseling services are typically limited to 10 or fewer visits, which is not adequate for someone with a diagnosed mental health disorder.

Below, a program at another Georgia university is highlighted. Using a grant from the Jed Foundation, the University of West Georgia (UWG) has transformed their mental health services on campus using several small, but influential steps.

1. The counseling center joins with peer mentors and academic counselors, so students can go to their peers and trusted advisors when they are most in trouble.
2. UWG has also initiated open conversation about mental illness to reduce stigma and there are no session limits on counseling and no copays because services are built into tuition.
3. The Active Minds program trains students to be on the lookout for warning signs in peers. It helps them ask the difficult questions of what resources are available, when you should intervene, and how to do it in a manner that is least disruptive.

LIMITATIONS

There are several limitations to this analysis. First, this analysis stems from a cross-sectional survey. As survey responses were taken at a single point in time, relationships described in this analysis are associative and not causal. Second, survey responses were collected at the household level, not the individual level. Thus, we are unable to make inferences or determine relationships at the individual resident level. Third, these data are self-reported measures that introduce the potential for response bias in the sample.

CONCLUSIONS

1. We find that the frequency of social engagement is predictive of household reports of mental health disorders in the Athens community. By increasing social engagement and social capital in general, we have the opportunity to reduce mental illness.
2. There are also significant savings in addressing social engagement, with the potential to save over \$15 million annually related to depression alone.
3. Access to treatment is also essential for those with mental health conditions, especially among college students. Access is a function of many factors, but affordability is currently the biggest barrier in our community.

ATHENS WELLBEING PROJECT

The Athens Wellbeing Project (AWP) is made possible through the following community stakeholders: Athens Area Community Foundation (AACF), Clarke County School District, United Way of Northeast Georgia, University of Georgia, Athens Housing Authority, and the Athens-Clarke County Unified Government. For more on the AWP, please visit www.athenswellbeingproject.org.

Appendix 1: Full Results of AWP Analysis

Table 1: Marginal Effects of Gathering at Least Weekly on Household Reporting of Mental Health Disorders for Full Sample, Athens Wellbeing Project Survey 2016 (N=1,314)

Variable	Margin	Standard Error	P-value	95% Confidence Interval
Weekly Gather	-0.0689*	0.0400	0.085	[-0.1473, 0.0096]
Attend Religious Services	-0.0522	0.0403	0.195	[0.0268, 0.5656]
Female	0.0741*	0.0407	0.069	[0.0057, 0.1538]
Age	-0.0015	0.0014	0.273	[-0.0043, 0.0012]
White	0.2069**	0.0402	0.001	[0.1282, 0.2856]
Private Insurance	0.0304	0.0482	0.528	[-0.0641, 0.1249]
Poor Self-Reported Health	-0.1224**	0.0382	0.001	[-0.1973, -0.0474]
Enrolled in College	0.0881	0.0626	0.159	[-0.0346, 0.2108]

Note: * $P \leq 0.1$; ** $P \leq 0.01$. All data weighted using probability weights.

Table 2: Marginal Effects of Gathering at Least Weekly on Household Reporting of Mental Health Disorders for Individuals Enrolled in College, Athens Wellbeing Project Survey 2016 (N=104)

Variable	Margin	Standard Error	P-value	95% Confidence Interval
Weekly Gather	-0.2101*	0.1293	0.10	[-0.4635, 0.0433]
Attend Religious Services	-0.0902	0.1290	0.48	[0.3430, 0.1626]
Female	0.2729*	0.1148	0.02	[0.0478, 0.4979]
Age	-0.0011	0.0085	0.90	[-0.0177, 0.0155]
White	0.2502*	0.1432	0.08	[-0.0305, 0.5310]
Private Insurance	0.1397	0.1963	0.48	[-0.2450, 0.5244]
Poor Self-Reported Health	-0.2810*	0.1170	0.02	[-0.5103, -0.0516]

Note: * $P \leq 0.1$. All data weighted using probability weights.

Table 3: Obstacles to Obtaining Mental Health Treatment of Counseling by Proportion of Households Reporting Each Barrier, Athens Wellbeing Project Survey 2016 (N=127)

Barrier to Treatment	Percentage Reporting
Affordability or Cost	48%
Did Not Know Where to Get Services	21%
Insurance Does Not Pay Enough	18%
Insurance Does Not Cover	12%
Negative Impact on Job	7%
Confidentiality Concerns	6%
Negative Community Perception/Stigma	5%
Concerns about Institutionalization or Medication	4%

Table 4: Marginal Effects of Selected Factors on Reporting Difficulties Accessing Mental Health Treatment or Counseling, Athens Wellbeing Project Survey 2016 (N=1,057)

Variable	Margin	Standard Error	P-value	95% Confidence Interval
Depression	0.0925***	0.0276	0.001	[0.0383, 0.1467]
Anxiety	0.0850**	0.0303	0.005	[0.0255, 0.1444]
Other Mental Health Disorders	0.0197	0.0267	0.461	[-0.0327, 0.0721]
Weekly Gather	-0.0413**	0.0161	0.010	[-0.0729, -0.0098]
Attend Religious Services	-0.0049	0.0143	0.729	[-0.0329, 0.0230]
Female	0.0118	0.0141	0.402	[-0.0158, 0.0393]
Age	0.0015***	0.0005	0.001	[-0.0025, -0.0006]
Black	-0.0246*	0.0149	0.099	[-0.0538, 0.0046]
Latinx	0.0130	0.0464	0.780	[-0.0780, 0.1040]
Enrolled in College	0.0255	0.0259	0.325	[-0.0253, 0.0762]
Healthcare Coverage	-0.0566*	0.0305	0.063	[-0.1163, 0.0031]
Poor Self-Reported Health	-0.0093	0.0140	0.507	[-0.0367, 0.0181]

Note: * P ≤ 0.1; ** P ≤ 0.01; *** P ≤ 0.001

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