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Intersectional Identities and Mental Health

Introduction

Across the United States, LGBTQIA+ individuals exhibit disproportionate rates of mental health disorders when compared to their cisgender and heterosexual counterparts (Moagi et al., 2021). In 2022, nearly half of LGBTQIA+ youth seriously contemplated suicide (Trevor Project, 2022). LGBTQIA+ status is not, however, the only factor in determining risk for mental health disorders. Other factors such as age, race, and disability status may also create risk for mental health disorders. When the intersection of these factors comes into play, this risk can compound itself, creating even more disparity among mental health disorders. These disparities represent a significant public health concern that necessitates comprehensive exploration and effective policy intervention.

This policy memo examines the complex relationship between LGBTQIA+ status, intersectional identities, such as age, race, and disability status, and mental health outcomes. Specifically, it analyzes mental health status and access to healthcare services across these intersectional identities within the LGBTQIA+ community. The objective is to enhance our understanding of the numerous factors which contribute to these disparities. By shedding light on these intersectional experiences, this analysis aims to equip policymakers with the necessary insights to address this national concern and to identify potential areas for intervention.

Background

Mental health is our emotional, psychological, and social well-being (U.S. Department of Health & Human Services (HHS), 2023). While mental health disorders, including depression, anxiety, bipolar disorder, and many others, can affect anyone, certain individuals are at higher risk. Risk factors for mental health disorders are characterized into the following categories: biological, psychological, family, community, and cultural (HHS, 2019). LGBTQIA+ individuals often have risk factors in multiple of these categories due to their gender or sexuality. Family-related risks, for example, can occur with LGBTQIA+ individuals when their family does not support their gender identity or sexuality. In some cases, this can lead to emotional or physical abuse, both of which are causes of mental health disorders. On the community level, LGBTQIA+ individuals are seeing record numbers of bills being proposed aimed at restricting their rights (Reed, 2023). The stress from the public discourse, as well as the content of the bills themselves, creates a high risk for mental health disorders within the LGBTQIA+ community.

Within the LGBTQIA+ community, disparities in mental health outcomes are also influenced by intersectional identities. Research indicates that LGBTQIA+ individuals who also identify as racial or ethnic minorities or who belong to lower socio-economic classes tend to experience higher rates of mental health disorders (Ng, 2016). For example, the mental health outcomes of Black LGBTQIA+ individuals often reflect the combined effects of racism and anti-LGBTQIA+ bias. Similarly, the interplay of socio-economic status and LGBTQIA+ identity impacts an individual's access to necessary mental health resources and services. Despite the complex interplay of these factors, comprehensive exploration of these disparities and the development of targeted interventions remains an area needing further attention.

Research Questions

The primary goal of this memo is to explore how mental health outcomes and access to mental health care services vary among different subsets of the LGBTQIA+ community, particularly focusing on how intersectional identities impact these outcomes.

Using the comprehensive data from the Centers for Disease Control's (CDC) 2021 Behavioral Risk Factor Surveillance System (BRFSS), this study aims to answer the following research questions:

1. Do mental health outcomes vary based on the intersection of LGBTQIA+ status with race, age, or disability status within a given population?
2. Does access to mental health care services vary based on these intersectional identities within the LGBTQIA+ community?

Data Description

The primary dataset employed in this paper is from the CDC and is collected annually. It is designed to be a system of ongoing surveys which collect data on health-related risk behaviors, health-care access, and the use of preventive services by adults 18 and older (Centers for Disease Control, 2021). Data for this survey is collected in all 50 states as well as the District of Columbia and three United States territories. The dataset collects a total of 303 variables relating to health-related risk behaviors, health-care access, and the use of preventive services with a total of 438,693 records for the 2021 dataset.

The following are variables from the 2021 BRFSS dataset with descriptions of any recodings performed. For variable definitions, refer to the 2021 BRFSS codebook.

_AGE80: No recoding performed.
_IMPRACE: No recording performed.
BLIND: Recoded as 0 for no, 1 for yes, and MISSING for any other values
DEAF: Recoded as 0 for no, 1 for yes, and MISSING for any other values
DECIDE: Recoded as 0 for no, 1 for yes, and MISSING for any other values
DIFFWALK: Recoded as 0 for no, 1 for yes, and MISSING for any other values
DIFFDRES: Recoded as 0 for no, 1 for yes, and MISSING for any other values
DIFFALON: Recoded as 0 for no, 1 for yes, and MISSING for any other values
MEDCOST1: Recoded as 0 for no, 1 for yes, and MISSING for any other values
MENTHLTH: Recoded as 0 for none, 1-30 for 1-30 days, and MISSING for any other values
PERSDOC3: Recoded as 0 for no, 1 for yes or more than one, and MISSING for any other values
SOFEMALE: Recoded as 0 for straight, 1 for lesbian or gay, bisexual, something else, or don’t know, and MISSING for any other values
SOMALE: Recoded as 0 for straight, 1 for gay, bisexual, something else, or don’t know, and MISSING for any other values
TRNSGNDR: Recoded as 0 for no, 1 for yes or don’t know, and MISSING for any other values

From these 15 variables, the following variables were recoded or computed into new variables for easier analysis.

Race: This variable was recoded from _IMPRACE with 0 for not White,

Non-Hispanic and 1 for White, Non-Hispanic.

LGBTQIA+ Status: This variable was computed from SOFEMALE, SOMALE, and TRNSGNDR with a 0 if *all* original variables had a value of 0, 1 if *any* of the original variables had a value of 1, and MISSING if *all* original variables had a value of MISSING.

Disability Status: This variable was computed from BLIND, DEAF, DECIDE, DIFFDRES DIFFWALK, and DIFFALON with a 0 if *all* original variables had a value of 0, 1 if *any* of the original variables had a value of 1, and MISSING if *all* original variables had a value of MISSING.

Mental Health Care Access: This variable was computed from MEDCOST1, PERSDOC3, and PRIMINSR by summing the values from the original variables. This resulted in a mental health care access score of 0 to 3, with 0 being the lowest level access and 3 being the highest level of access. For future analysis, these original values can be weighted differently to increase the importance of a specific variable in determining mental health care access.

Analysis & Results

Descriptives

Of the 438,693 respondents in the dataset, 18,104 (4.3%) identified as being part of the LGBTQIA+ community. Analysis in this memo was performed using the portion of respondents who identified as being part of the LGBTQIA+ community. Of these individuals, 12,272 (67.8%) identified as White and 5,832 (32.2%) identified as non-White. The median age was 43 with a standard deviation (SD) of 19.579. 7,208 (40.9%) individuals reported having some kind of disability. Average number of days of poor mental health per month ranged from 0 to 30 with a mean of 7.73 and a SD of 10.314. Mental health care access ranged from 0 to 3 with a mean of 1.88 and a SD of 0.586.

Independent t-tests of mental health outcomes and race

When comparing the mean number of days of poor mental health per month between White and non-White individuals, White individuals had a mean of 8.11 days compared to a mean of 6.94 days for non-White individuals. Independent t-testing on these means shows the statistical significance of the difference between these means. Using a 95% confidence interval, the t-testing showed, on average, White individuals experienced between 0.846 and 1.497 more days of poor mental health than non-White individuals. This difference was found to be statistically significant with a one-sided p value of less than 0.001.

While these averages do indicate the impact of race on mental health outcomes within the LGBTQIA+ community, the results found in this analysis are not what was expected. Several explanations for this exist. Cultural differences about what is defined as a day of poor mental health, or openness about discussing mental health could be one of such explanations while another explanation could be socioeconomic factors. Economic factors may play a larger role in determining mental health outcomes than race. Subsequently, it may be prudent to include other variables such as housing status and income in future analysis.

Independent t-tests of mental health outcomes and disability status

Individuals with disabilities experienced an average of 11.62 days of poor mental health compared to an average of 5.17 for individuals who do have a disability. Independent t-test analysis on these means shows that there is a difference between these two values with individuals with disabilities having between 6.149 and 6.738 more days of poor mental health than individuals without disabilities. The difference range provided is using a 95% confidence interval and this difference was shown to be statistically significant with a one-sided p value of less than 0.001.

Bivariate correlation of mental health outcomes and age

Bivariate correlation analysis of the number of days of poor mental health and age shows there is a correlation of -0.302 between these two variables. This shows the number of days of poor mental health decreases by 0.302 for every year of age. The correlation here has a significance value of less than 0.001 so it is statistically significant at the 0.01 level.

Multivariate analysis of mental health outcomes

Multivariate regression of race, age, and disability status on the number of days of poor mental health shows the linear equation $\hat{y} = 11.874 + 1.954x_1 + 6.978x_2 - 0.180x_3$ where y is the number of days of poor mental health, x_1 is 1 if the individual is White or 0 if not, x_2 is 1 if the individual has a disability or 0 if not, and x_3 is the individual's age. All of these coefficients are statistically significant at the 0.01 level with significance values of less than 0.001. This analysis shows a positive correlation between identifying as White and the number of days of poor mental health. Disability status also increased the number of days of poor mental health with a positive correlation of 6.978. Age was the only variable to provide a negative correlation with a correlation of -0.181. The R-value of 0.458 indicates a moderately positive correlation.

Independent t-tests of access to mental health care and race

Mean levels of access to mental health care between White and non-White individuals were 1.93 and 1.77 respectively. Independent t-testing on these mean levels showed White individuals, on average, had a 0.149 to 0.186 higher level of access to mental health care. The range of differences given is at the 95% confidence interval. This analysis is statistically significant at the 0.01 level with a one-sided p value of less than 0.001.

Independent t-tests of access to mental health care and disability status

Individuals with a disability had a mean level of access to mental health care of 1.97, which is higher than the mean level of 1.83 held by individuals without a disability. Independent t-testing on these mean levels showed individuals with disabilities had between 0.124 and 0.160 higher levels of access to mental health care than individuals without a disability. The range of differences given is at the 95% confidence interval. This analysis is statistically significant at the 0.01 level with a one-sided p value of less than 0.001. The positive correlation here likely is due to the fact that individuals with disabilities will have more contact points with health care providers, leading to increased opportunities for mental health care access. Future analysis might modify the weight of each of the factors that make up mental health care access to see how it is affected, for example, if it is weighted more towards ability to pay for health care rather than having a primary care provider.

Bivariate correlation of access to mental health care and age
Bivariate correlation analysis of the level of access to mental health care and age shows there is a correlation of 0.106 between these two variables. This shows the level of access to mental health care increases by 0.106 for every year of age. The correlation here has a significance value of less than 0.001 so it is statistically significant at the 0.01 level. A positive correlation here is understandable given that individuals will likely require more healthcare overall as they increase in age due to natural illness and other health issues.

Multivariate analysis of access to mental health care
Multivariate regression of race, age, and disability status on the level of access to mental health care shows the linear equation $\hat{y} = 1.618 + 0.146x_1 + 0.134x_2 + 0.002x_3$ where y is the number of days of poor mental health, x_1 is 1 if the individual is White or 0 if not, x_2 is 1 if the individual has a disability or 0 if not, and x_3 is the individual's age. All of these coefficients are statistically significant at the 0.01 level with significance values of less than 0.001. This analysis shows a positive correlation between identifying as White and the level of access to mental health care. Disability status also increased the level of access to mental health care with a positive correlation of 0.134. Age did provide a positive correlation but of only 0.002. This is in part due to the larger range of ages, but also does suggest age has a smaller correlation than the other two variables. The R-value of 0.192 indicates a relatively small positive correlation. Such a small positive correlation can be explained by the lack of properly weighting the factors which make up the access to mental health care variable.

Conclusion & Policy Recommendations
From the analyses provided, it is clear that intersectional identities of race, age, and disability status within the LGBTQIA+ community play a major role in mental health outcomes and access to mental health care. This study found statistically significant variations in mental health outcomes specifically among younger individuals and individuals with disabilities. A correlation between race and mental health outcomes was found but further research should be conducted to investigate other factors which might be magnifying that correlation such as socioeconomic status and cultural differences.

Race, age, and disability also all heavily impacted access to mental health care in the LGBTQIA+ community. Multivariate analysis on these factors showed race to be the greatest factor in determining access to mental health care with disability status closely following. Age had a small correlation with access to mental health care but the correlation was still positive. The correlation of these three through multivariate analysis was rather weak though and warrants further study and analysis.

With these findings, it is recommended policymakers target mental health interventions for individuals within the LGBTQIA+ community. Specifically, programs and initiatives should be implemented to improve mental health outcomes for LGBTQIA+ young adults and LGBTQIA+ individuals with disabilities. In addition to this, policymakers should work to increase access to mental health care in marginalized communities within the LGBTQIA+ community - specifically focusing on non-White individuals.

Works Cited:

Cyrus, K., & Morrison, C. (2019a). (rep.). *Mental Health Facts on Questioning/Queer Populations*. American Psychiatric Association. Retrieved July 9, 2023, from https://www.psychiatry.org/getmedia/1da0f311-d0d1-4bd3-8397-acb76a4a8d6a/Mental-Health-Facts-for-Queer-Questioning-Populations.pdf.

Moagi, M. M., Der Wath, A. E., Jiyane, P. M., & Rikhotso, R. S. (2021). Mental health challenges of lesbian, gay, bisexual and transgender people: An integrated literature review. *Health SA Gesondheid*, *26*. https://doi.org/10.4102/hsag.v26i0.1487

Ng, H. H. (2016). Intersectionality and shared decision making in LGBTQ Health. *LGBT Health*, *3*(5), 325–326. https://doi.org/10.1089/lgbt.2016.0115

Reed, E. (2023, May 20). *May anti-trans legislative risk map*. May Anti-Trans Legislative Risk Map - by Erin Reed. https://www.erininthemorning.com/p/may-anti-trans-legislative-risk-map

The Trevor Project. (2022). (rep.). *2022 National Survey on LGBTQ Youth Mental Health*. Retrieved July 9, 2023, from https://www.thetrevorproject.org/survey-2022/assets/static/trevor01_2022survey_final.pdf.

U.S. Department of Health & Human Services. (2019). (rep.). *Risk and Protective Factors*. Retrieved July 9, 2023, from https://www.samhsa.gov/sites/default/files/20190718-samhsa-risk-protective-factors.pdf.

U.S. Department of Health & Human Services. (2023). *What is mental health?*. SAMHSA. https://www.samhsa.gov/mental-health

Appendix

Descriptives

Frequencies

		IMPUTED AGE VALUE COLLAPSED ABOVE 80	NUMBER OF DAYS OF POOR MENTAL HEALTH	ACCESS TO MENTAL HEALTH CARE
N	Valid	18104	17648	16838
	Missing	0	456	1266
Mean		46.04	7.73	1.88
Median		43.00	2.00	2.00
Mode		80	0	2
Std. Deviation		19.579	10.314	.586
Variance		383.337	106.377	.344
Minimum		18	0	0
Maximum		80	30	3

RACE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	5832	32.2	32.2	32.2
	1	12272	67.8	67.8	100.0
	Total	18104	100.0	100.0	

DISABILITY STATUS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	10402	57.5	59.1	59.1
	1	7208	39.8	40.9	100.0
	Total	17610	97.3	100.0	
Missing	System	494	2.7		
Total		18104	100.0		

Independent t-tests of mental health outcomes and race

Group Statistics

	RACE	N	Mean	Std. Deviation	Std. Error Mean
NUMBER OF DAYS OF POOR MENTAL HEALTH	1	11997	8.11	10.433	.095
	0	5651	6.94	10.011	.133

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
NUMBER OF DAYS OF POOR MENTAL HEALTH	Equal variances assumed	46.767	<.001	7.048	17646	<.001	<.001	1.171	.166	.846	1.497
	Equal variances not assumed			7.154	11493.496	<.001	<.001	1.171	.164	.850	1.492

Independent t-tests of mental health outcomes and disability status

Group Statistics

	DISABILITY STATUS	N	Mean	Std. Deviation	Std. Error Mean
NUMBER OF DAYS OF POOR MENTAL HEALTH	1	6960	11.62	11.781	.141
	0	10224	5.17	8.235	.081

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
NUMBER OF DAYS OF POOR MENTAL HEALTH	Equal variances assumed	2800.872	<.001	42.229	17182	<.001	<.001	6.448	.153	6.149	6.748
	Equal variances not assumed			39.557	11492.907	<.001	<.001	6.448	.163	6.129	6.768

Bivariate correlation of mental health outcomes and age

Correlations

		IMPUTED AGE VALUE COLLAPSED ABOVE 80	NUMBER OF DAYS OF POOR MENTAL HEALTH
IMPUTED AGE VALUE COLLAPSED ABOVE 80	Pearson Correlation	1	-.302**
	Sig. (1-tailed)		<.001
	N	18104	17648
NUMBER OF DAYS OF POOR MENTAL HEALTH	Pearson Correlation	-.302**	1
	Sig. (1-tailed)	<.001	
	N	17648	17648

**. Correlation is significant at the 0.01 level (1-tailed).

Multivariate analysis of mental health outcomes

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	IMPUTED AGE VALUE COLLAPSED ABOVE 80, DISABILITY STATUS, RACE[b]	.	Enter

a. Dependent Variable: NUMBER OF DAYS OF POOR MENTAL HEALTH

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.458[a]	.209	.209	9.180

a. Predictors: (Constant), IMPUTED AGE VALUE COLLAPSED ABOVE 80, DISABILITY STATUS, RACE

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	383379.206	3	127793.069	1516.344	<.001[b]
	Residual	1447880.984	17180	84.277		
	Total	1831260.190	17183			

a. Dependent Variable: NUMBER OF DAYS OF POOR MENTAL HEALTH

b. Predictors: (Constant), IMPUTED AGE VALUE COLLAPSED ABOVE 80, DISABILITY STATUS, RACE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	11.874	.202		58.731	<.001	11.478	12.270
	RACE	1.954	.152	.088	12.867	<.001	1.657	2.252
	DISABILITY STATUS	6.978	.143	.332	48.765	<.001	6.698	7.259
	IMPUTED AGE VALUE COLLAPSED ABOVE 80	-.180	.004	-.340	-49.608	<.001	-.187	-.173

a. Dependent Variable: NUMBER OF DAYS OF POOR MENTAL HEALTH

Independent t-tests of access to mental health care and race

Group Statistics

	RACE	N	Mean	Std. Deviation	Std. Error Mean
ACCESS TO MENTAL HEALTH CARE	1	11503	1.93	.508	.005
	0	5335	1.77	.713	.010

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
ACCESS TO MENTAL HEALTH CARE	Equal variances assumed	1287.773	<.001	17.413	16836	<.001	<.001	.168	.010	.149	.186
	Equal variances not assumed			15.444	7940.995	<.001	<.001	.168	.011	.146	.189

Independent t-tests of access to mental health care and disability status

Group Statistics

	DISABILITY STATUS	N	Mean	Std. Deviation	Std. Error Mean
ACCESS TO MENTAL HEALTH CARE	1	6644	1.97	.570	.007
	0	9764	1.83	.583	.006

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
ACCESS TO MENTAL HEALTH CARE	Equal variances assumed	147.611	<.001	15.488	16406	<.001	<.001	.142	.009	.124	.160
	Equal variances not assumed			15.557	14483.909	<.001	<.001	.142	.009	.124	.160

Bivariate correlation of access to mental health care and age

Correlations

		IMPUTED AGE VALUE COLLAPSED ABOVE 80	ACCESS TO MENTAL HEALTH CARE
IMPUTED AGE VALUE COLLAPSED ABOVE 80	Pearson Correlation	1	.106**
	Sig. (1-tailed)		<.001
	N	18104	16838
ACCESS TO MENTAL HEALTH CARE	Pearson Correlation	.106**	1
	Sig. (1-tailed)	<.001	
	N	16838	16838

**. Correlation is significant at the 0.01 level (1-tailed).

Multivariate analysis of access to mental health care

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	IMPUTED AGE VALUE COLLAPSED ABOVE 80, DISABILITY STATUS, RACE[b]	.	Enter

a. Dependent Variable: ACCESS TO MENTAL HEALTH CARE

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.192[a]	.037	.037	.571

a. Predictors: (Constant), IMPUTED AGE VALUE COLLAPSED ABOVE 80, DISABILITY STATUS, RACE

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	204.562	3	68.187	208.802	<.001[b]
	Residual	5356.963	16404	.327		
	Total	5561.526	16407			

a. Dependent Variable: ACCESS TO MENTAL HEALTH CARE

b. Predictors: (Constant), IMPUTED AGE VALUE COLLAPSED ABOVE 80, DISABILITY STATUS, RACE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.618	.013		124.366	<.001	1.593	1.644
	RACE	.146	.010	.116	15.013	<.001	.127	.165
	DISABILITY STATUS	.134	.009	.113	14.650	<.001	.116	.151
	IMPUTED AGE VALUE COLLAPSED ABOVE 80	.002	.000	.081	10.452	<.001	.002	.003

a. Dependent Variable: ACCESS TO MENTAL HEALTH CARE