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Factors Affecting Student Satisfaction with University Mental Health Clinic

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Abstract

Satisfaction with mental health treatment is an underrepresented area of research. There is a lack of published literature on student satisfaction with university mental health clinics despite an increased demand for treatment. This study identified individual factors such as gender, race, sexual orientation, and gender identity and determined which affected overall satisfaction with UNCA's mental health center using the Mental Health Statistics Improvement Program (MHSIP) survey. It was predicted that racial minorities and LGBQIA participants would be less satisfied with the services they received. The MHSIP survey measures general satisfaction as well as satisfaction with the subscales; accessibility, quality and participation, outcomes and functioning, and social connectedness. Linear regression analysis was used to determine which of the subscales predicted overall satisfaction. It was predicted that quality and participation would be the biggest predictor of overall satisfaction given previous research. Using one-way ANOVAs, it was found that race had no effect on satisfaction. However, asexual participants were significantly less satisfied than heterosexual participants on general satisfaction measures, social connectedness, and outcomes and functioning. Agender/gender neutral participants reported significantly lower functioning and worse outcomes than cisgender participants. Additionally, they reported marginally significant differences compared to cisgender participants with lower scores on the social connectedness subscale. Outcomes and functioning were the largest predictor of overall satisfaction, with social connectedness being the second highest predictor. These results suggest that clinicians may need to be more aware of the needs of asexual and agender/gender neutral individuals and design treatment to provide additional support to these individuals given the daily stigma they face. Additionally, this research suggests that college students may value different aspects of treatment compared to the general adult population. Future research should examine the specific needs of college students.

1. Introduction:

1.1 University Mental Health Centers and College Students Today

According to the Council for the Advancement of Standards in Higher Education the goal of university mental health centers is to "assist students to define and accomplish personal, academic, and career goals by providing developmental, preventive, and remedial counseling".[1] In recent years, university mental health centers have reported up to a 50% increase in students visiting their mental health centers and report students using centers for longer periods of time. [2] Additionally, mental health centers are reporting an increase of students with severe psychological conditions seeking treatment from campus centers including but not limited to self-injury incidences, suicidality, eating disorders, and drug and substance use.[3] An alarming 25.2% of students sought services due to suicidal thoughts or behaviors in 2017.[4] As would be expected, there have also been increases in the use of psychotropic medication, with 25.5% of students that use the university mental health centers reporting the use of medication.[5] On average, 11.5% of students were hospitalized due to psychological reasons in 2017.[6]

Despite the increased use of university mental health centers and increased severity of symptoms many mental health centers have seen minimal increases to their budgets.[7] Only 50.7% of universities report providing psychiatric services to students – whether full or part time.[8] Of those universities that provide psychiatric services 64.7% report needing more hours to meet the needs of students.[9] 39% of universities report needing more hours of counseling services.[10] The overall ratio of students to counselors on average is 1,1578:1, with much higher ratios observed at larger institutions.[11] The high ratio of students to counselors results in heavier workloads which contribute to higher levels of stress and staff burnout.[12] The number of students with diagnosable mental illnesses who receive treatment is subsequently low. Only 24% of students diagnosed with depression, 50% with mood disorders, and 20% with anxiety disorders will receive treatment.[13] Despite their best efforts, it is clear that university mental health centers require more funding to better handle the influx of students seeking services and appropriately treat the severe symptomology they are observing.

The efficacy of treatment has been proven through extensive research: Counseling improves the functioning and academic performance of students.[14] Mental illnesses by definition decreases the ability of an individual to function, which often results in low academic performance, reduced social functioning, and ability to care for oneself. This can cause lower retention and graduation rates. Universities report 5% of college students will drop out and 16.4% will seek medical leave due to psychiatric disorders.[15] However, a positive correlation has been found between number of counseling sessions and retention rates.[16] Likewise, 66.8% of students reported that counseling helped their academic performance and 65.2% reported it helped them remain in school. [17] Therefore, it is in the best interests of universities to provide sufficient counseling and psychiatric services to students in order to increase their school's academic performance, retention, and graduation rates.

1.2 Satisfaction with Mental Health Care

As psychiatric healthcare switched to the managed care model and emphasized using empirically-supported treatments, the approach to healthcare became consumer-focused.[18] This change in philosophy resulted in an increased interest in how patient satisfaction affected outcomes, the variables that determined patient satisfaction, and how it could be measured. In 1975, the Community Mental Health Center Amendment was passed which mandated that all community mental health providers had to be evaluated in order to continue to receive funding.[19] Partially in response to this amendment, the 1980's saw a rise in research developing surveys to assess client satisfaction, including the Client Satisfaction Questionnaire (CSQ), the Service Satisfaction Scale (SSS), and the Mental Health Statistics Improvement Program Survey (MHSIP). Of these, the MHSIP is most commonly used to assess state-run community mental health clinics. It was developed in the 1970s by the government with the help of the Substance Abuse and Mental Health Services Administration (SAMHSA). Input was provided from experts on the federal, state, and local levels as well as social service providers and advocacy groups. In 1999 the 28-item version of the MHSIP was created and adopted by the Center for Mental Health Services (CMHS) as a primary indicator of satisfaction.[20] It continues to be used in states across the country as a way of assessing the efficacy of their community clinics.

In addition to determining how satisfaction could be measured, researchers examined how satisfaction related to outcomes, individual characteristics, and specific aspects of the healthcare process. Satisfaction with treatment has been linked to higher self-reports of overall improvement, better attendance, reduced symptomology and higher levels of mutual termination of treatment.[21] One study followed up with clients three years after treatment and found that those who reported higher satisfaction on the MHSIP survey had marginally better outcomes.[22] Although satisfaction alone is not a good measurement of treatment efficacy and quality, it can be an important tool to determine whether the treatment being offered is meeting the needs of its clients. Measuring satisfaction is of the utmost importance when examining free or sliding scale clinics that lack the financial incentive to provide excellent care, which may lead to sub-par treatment or "under doctoring".[23] Additionally, it can be a means of identifying areas of treatment that could use improvement, and when funds are limited it is essential to know where resources should be utilized. Also, satisfaction results can be used in grant proposals justifying further funding.

Researchers have noticed certain factors that are more likely to influence satisfaction. Using the MHSIP survey, researchers found that accessibility (physical location, public transportation, cost) and quality of treatment had the largest effect on global measures of satisfaction.[24] Other research has found that factors such as socioeconomic status, education level, and age does not affect overall satisfaction.[25] However, there is some evidence to suggest that age may affect the aspects of treatment that are identified as more important despite no differences in overall satisfaction levels. Adolescents report valuing social connectedness and participation in treatment planning more than adults.[26]

It is important to note that some groups report more satisfaction with treatment than others. Clients who identify as white tend to be more satisfied than non-white clients, and Native Americans report the least satisfaction with

treatment.[27] This could be caused by issues of cultural sensitivity given a lack of representative clinicians.[28] Men tend to report lower levels of satisfaction than women, possibly due to higher levels of stigmatization associated with male gender identity.[29]

As of yet, research has not examined satisfaction of individuals with non-binary gender identities or different sexual orientations – an issue this study intends to remedy. Given the lack of representation and cultural sensitivity, like ethnic minorities, it is likely that individuals within the Lesbian, Gay, Bisexual, Transgender Queer, Intersex, and Asexual (LGBTQIA) community will report less satisfaction. Likewise, in accordance with previous studies it is likely that ethnic minorities will be less satisfied with treatment. Since satisfaction has not been measured at a university using a standardized survey, this research will examine additional factors associated with being a student such as: year in school, whether a student is an athlete, non-traditional student, international student, and lives on or off campus to determine if any of these characteristics predict satisfaction. Given that the bulk of previous research suggests most individuals are satisfied with their treatment, it is likely that 80% or more of participants will report that they are satisfied with the treatment they receive.[30]

2. Methods:

2.1 Participants

All participants were current or recently graduated students from University of North Carolina Asheville (UNCA) and had previously used the on-campus health and counseling center for counseling, psychiatric services, or both. Participants were excluded from the study if they were below the age of 18, as parental consent would have been required, and participants may not have felt comfortable divulging their use of the mental health center. Additionally, it could potentially be a violation of the Health Insurance Portability and Accountability Act (HIPAA).

2.2 Materials

Given the widespread use of the MHSIP survey in numerous community-based treatment centers across the United States it was selected as the best option for this study. In addition to being a common and standardized method of testing client satisfaction, the MHSIP has been extensively tested to measure its statistical reliability. The 36-item survey has demonstrated strong reliability ($\alpha = 0.91$). Furthermore, the survey has demonstrated moderate stability with a test-retest score of 0.53 with an interval of three years between test dates in a study that measured satisfaction and subsequent symptom reduction.[31] The survey has also proven to be favorable with 80% of respondents indicating that they felt the survey covered all important aspects of the treatment plan and services, and that they did not find it difficult or confusing.[32] Additionally, the MHSIP survey has been shown to be positively correlated with improved social health and mental health outcomes, making it an effective measurement to evaluate the efficacy of mental health centers.[33]

The MHSIP originally categorized satisfaction into five domains – access, quality of treatment, participation in treatment planning, outcomes, and general satisfaction. Access is defined as the ease and convenience of seeking treatment with variables such as location, financial barriers, and availability of caregivers. Quality of treatment encompasses information provided, potential side effects of medication offered, confidentiality, and provider competence. Participation in treatment planning is the extent to which the client's input was encouraged. Outcomes are broken down into symptom reduction, improvement in work performance, and increased personal effectiveness.[34]

In 2006, the domains of social connectedness and functioning were added. Social connectedness covers the strength of social ties to friends, family, and community, while functioning focuses on the ability of individuals to care for themselves.[35] In 2018, an exploratory factor analysis was conducted, and it was determined that the subscales actually represented five domains with participation in treatment being included with quality of treatment, and outcomes and functioning being grouped together.[36] Given the similarity in definitions between these domains it is unsurprising that they are measuring the same construct. Currently the MHSIP represents five domains; access, quality and participation in treatment planning, outcomes and functioning, social connectedness, and general satisfaction.

There has been limited research examining how demographics affect the satisfaction of clients utilizing the MHSIP survey. However, the small body of literature has generally supported satisfaction research with minorities and men being less satisfied with treatment, while age and education level show little to no effect on treatment satisfaction scores.[37] The small body of research that has examined the influence of the subscales of the MHSIP on the general

satisfaction scores reported has shown access and quality of treatment to have the largest effects on overall satisfaction.[38]

2.3 Procedure

This quasi-experimental study utilized a self-report questionnaire asking participants a series of questions that identified their demographic characteristics. In addition to using the 36-question MHSIP survey, two questions were included at the end asking for positive and negative qualitative feedback. Statistical analysis was used to determine whether student characteristics influenced general satisfaction scores as well as which subscales had the largest effect on general satisfaction scores.

The first question on the survey asked whether students had read and understood the informed consent. Written informed consent was waived given the sensitive nature of the questions and the stigma associated with mental health, as well as protecting confidentiality as mandated by HIPAA. Five standard questions regarding demographic characteristics were created, identifying potential areas that may influence the participant's identity including ethnicity, gender, sexual orientation, year in school, and gender identity. All questions were created with inclusivity and diversity in mind and students were offered a section where they could write in an answer if they felt the options did not represent their identities. One question asked students to identify which of the following applied to them including whether they were an athlete, transfer, non-traditional, and international student. In addition, eight questions addressed the services students sought at the university mental health center, how long they received those services, and what their diagnosis was if they received one. These questions were included in order to better understand the help-seeking behavior of students and how that might influence their answers on the satisfaction section of the questionnaire. Following the 15 characteristic questions the 36 standard MHSIP questions were presented. The MHSIP survey breaks down the subscales into a series of questions; satisfaction (3), outcomes/functioning (12), quality and participation (11), access (6) and social connectedness (4). In addition to the MHSIP questions, two questions asked for qualitative feedback identifying aspects of treatment they liked and disliked.

The surveys were printed and placed on a table in the health and counseling center waiting room approximately ten feet away from the front desk where students check in. The informed consent was displayed, and printed copies were attached to the clipboards holding the survey and available to take home. A plain cardboard box with a sign stating, "Please Give Us Your Feedback and Support Undergraduate Research" was taped on the box as well as directions to read the informed consent before proceeding to complete the survey. The informed consent was displayed next to it and participants were given printer copies. Upon completion of the survey participants were instructed to slip the survey into the box which was sealed to prevent individuals from reading or collecting personal information. Front desk staff asked students if they would like to participate and directed the students to the survey when students checked in for appointments.

A digital copy of the survey was created using the software Survey Monkey and posted on UNCA's student portal labelled "Psychology Research Participation Spring 2019". This student portal is available to all students enrolled in a Psychology class and students may receive credit in their classes for participating in the research. In addition, a description of the study, copy of the informed consent, and link to the survey was circulated via email to several diversity groups, and classes outside the Psychology department. The format, wording, and order of questions of the online survey were as close to the paper survey as possible within the framework of the software in order to maintain reliability when comparing the paper and online version of the survey. The collection period for both the physical and digital version of the survey was approximately one month, – from the end of January to the beginning of March.

Upon completion of data collection, the physical copies of the survey were collected and entered using the statistical software SPSS. Means were calculated for each variable, and "Not Applicable" responses were treated as missing variables and excluded when calculating overall averages.[39] In all statistical analyses conducted, an alpha level of 0.05 was used. Levene's test was conducted prior to calculating the analysis of variance (ANOVA) to test the assumption that the variances between groups were equal. If the variance was unequal as indicated by the value falling below the level of significance, a Welch's ANOVA was conducted. The variables, gender, race, year in school, sexual orientation, and gender identity were examined using one-way ANOVAS to determine differences in scores on satisfaction and the subscales accessibility, quality and participation, outcomes and functioning, and social connectedness. The post-hoc test Tukey's HSD was used to compare the differences between groups. For the questions concerning whether students lived on campus, were transfer students, or athletes, independent t-tests were conducted to determine how these factors interacted with satisfaction and the subscales of the MHSIP.

In addition to examining how demographics affect participant's satisfaction, analysies was also conducted to determine how each of the subscales influenced a participant's overall score on the MHSIP. First, scatterplots were

created to map the data and determine there was a linear relationship. Once a positive linear relationship was determined and no significant outlier were identified, linear regression analysis was conducted using SPSS.

3. Results:

3.1 Demographics

A total of 99 participants responded to the survey, with a prodigious 94 responses to the online survey and 5 responses to the paper survey. Given that 1,707 students used the health and counseling center in the 2017-2018 school year, the estimated response rate is 5.8%. However, some participants had to be excluded due to a lack of sufficient responses per the guidelines outlined by SAMHSA, which indicate that surveys missing 30% or more questions are to be removed from the sample.[40] Applying these criteria resulted in a sample size of 71 participants culminating in an estimated response rate of 4.1%.

The racial and ethnic demographics of the respondents were moderately reflective of the general campus population with 86% of respondents identifying as white compared to the campus average of 76%.[41] African Americans were the second largest population to respond representing 8.5% of the total participants (Figure 1A). An overwhelming 80% of participants identified as female, with 10% identifying as male, and 10% identifying as either both or neither gender (Figure 1B).

There was a large amount of variability in reported sexual orientation, with only 46.5% of the participants identifying as straight and bisexual being the second largest category at 23.9% (Figure 1C). There was less diversity in gender identity with 76.1% identifying as cisgender (Figure 1D). Most participants indicated they were using the university mental health center for counseling services, with a smaller percentage using it for both counseling and psychiatric services. 69% of participants either did not receive a diagnosis or did not know their diagnosis. The participants who were given a diagnosis most commonly reported anxiety although it was often comorbid with other disorders, most frequently depression. This is consistent with data from other university mental health centers.[42]

3.2 Satisfaction Averages

Agreement is indicated on the MHSIP by a score of 2.49 or lower, while disagreement is indicated by a score of 2.50 or higher.[43] Approximately 81% of individuals identified that they were satisfied with the services they received at the university mental health center. The overall mean for the satisfaction scale was 2.53, which falls just outside the border of satisfaction. Participants indicated they were most satisfied with the quality and participation demonstrated in treatment (M = 2.12), followed by accessibility (M =2.28), social connectedness (M = 2.33), and outcome and functioning (M = 2.49).

3.3 Variability of Satisfaction

There was some interaction between participants' characteristics and their overall satisfaction based on the results of the ANOVA. The impact of gender on satisfaction, quality and participation in treatment planning, and social connectedness did not yield any significant effects. However, the effect of gender on the outcomes and functioning subscale approached significance, $F(3,63) = 2.69$, $p = .054$. Post hoc analysis revealed individuals who identified as female (M = 26.80, SD = 8.67) had significantly better results and outcomes than those who identified as neither gender (M = 41.33, SD = 9.61), at a significance level of .033. There were no significant differences between year in school and any of the MHSIP subscales. Likewise, different ethnicities did not show significant differences in responses to satisfaction or any of the subscales.

Sexual orientation significantly affected satisfaction, social connectedness, and the outcomes and functioning subscales. The differences in sexual orientation and satisfaction were greatest between individuals who identified as heterosexual (M = 6.79, SD = 2.51) and those who identified as asexual (M = 10.50, SD = 3.42), $F(4,66) = 2.93$, $p = .027$ (Table 1). Post hoc analysis also revealed marginally significant differences between bisexual participants (M = 7.11, SD = 3.42) and asexual participants who remained the least satisfied. This pattern continued with asexual participants reporting feeling least socially connected (M = 12.71, SD = 4.11), with significant differences when compared to heterosexual (M = 8.42, SD = 2.69) and bisexual participants (M = 8.29, SD = 3.39), $F(4,63) = 2.88$, $p = .030$ (Table 2). In concurrence asexual participants (M = 36.00, SD = 9.09) also had significantly worse ratings of

outcomes and functioning when compared to heterosexual (M = 25.5, SD = 7.7) and bisexual participants (M = 25.38, SD = 9.64), $F(4,62) = 2.88$, $p = .030$.

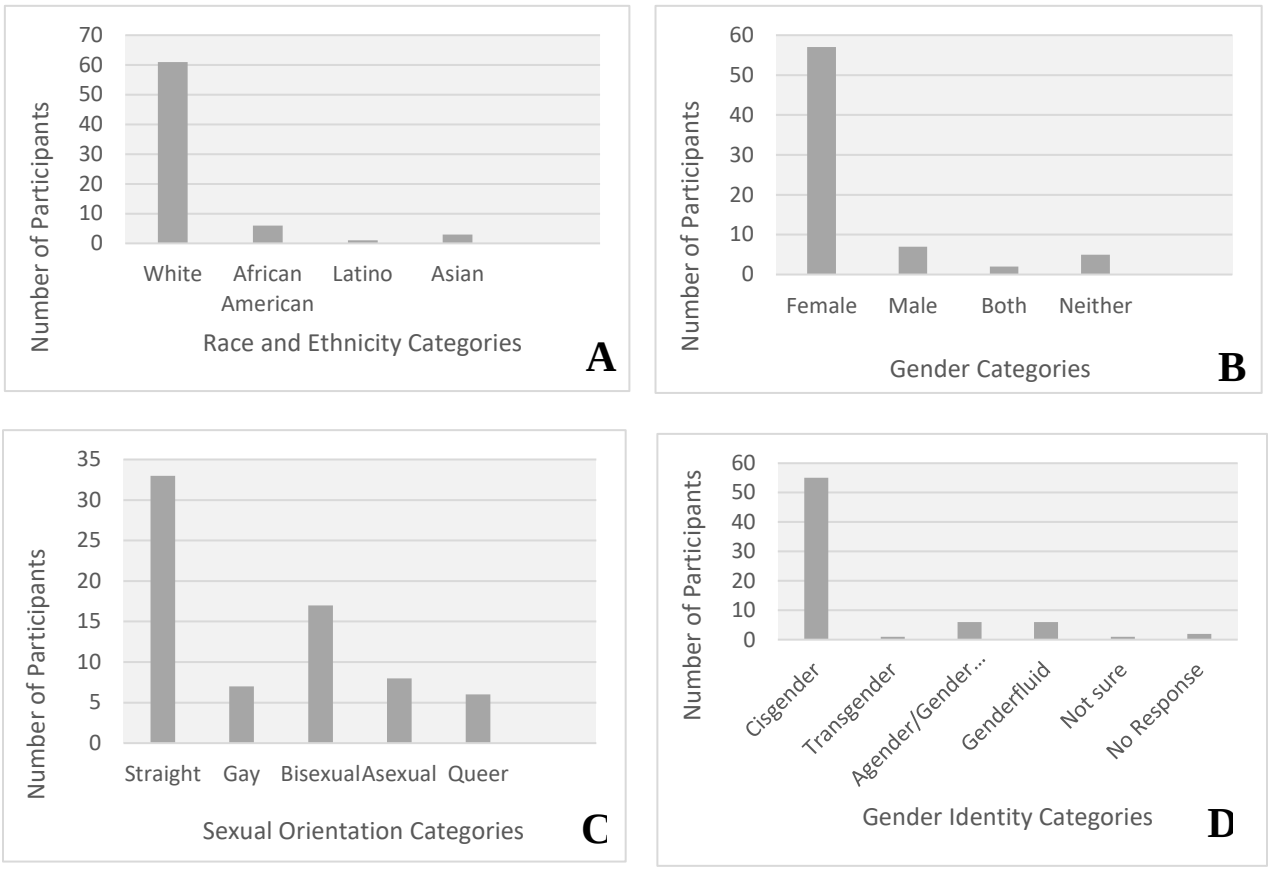


Figure 1. Demographics of Participants

Figure 1A: The racial and ethnic demographics of participants, Figure 1B: The gender demographics of participants, Figure 1C: The sexual orientation of participants, Figure 1D: The gender identity of participants

As predicted, gender identity did affect aspects of satisfaction most prominently displayed in the outcomes and functioning subscale $F(2,60) = 4.88$, $p = .011$ (Table 3). Post-hoc tests revealed that the greatest variation was between cisgender (M = 26.19, SD = 8.72) and agender/gender neutral participants (M = 38.80, SD = 10.89), with agender/gender neutral participants reporting significantly lower scores for outcomes and functioning. While the relationship between gender identity and social connectedness was not statistically significant, it did approach significance, $F(2,61) = 2.96$, $p = 0.59$. Like previous results, agender and gender-neutral participants felt that the services did not help them socially connect (M = 12.17, SD = 8.62) with cisgender participants reporting feeling the most socially connected (M = 8.62, SD = 3.25).

The results of the t-tests revealed no significant differences between athletes and non-athletes or students living on or off campus. There were marginally significant differences between transfer students (M = 6.55, SD = 2.99) and non-transfer students (M = 7.96, SD = 2.99) on their reports of satisfaction, with transfer students being less satisfied; $t(69) = -1.85$, $p = 0.069$.

Table 1. Results of ANOVA for sexual orientation and satisfaction

NOVA					
Satisfaction					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	97.391	4	24.348	2.931	0.027
Within Groups	548.327	66	8.308		
Total	645.718	70			

Table 2. Results of ANOVA for sexual orientation and social connectedness

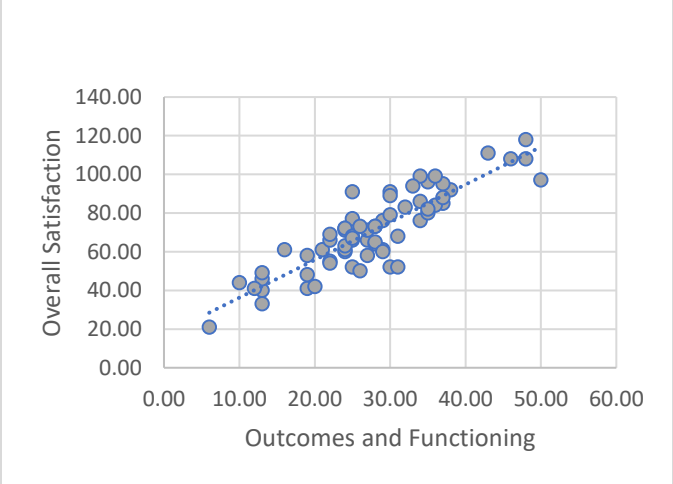
ANOVA					
Social Connectedness					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	120.788	4	30.197	2.882	0.030
Within Groups	660.197	63	10.479		
Total	780.985	67			

Table 3. Results of ANOVA for gender identity and outcomes and functioning

ANOVA					
Outcomes and Functioning					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	751.538	2	375.769	4.880	0.011
Within Groups	4620.113	60	77.002		
Total	5371.651	62			

3.4 Linear Regression Analysis

The linear regression analysis resulted in a strong positive relationship between the subscales, and overall satisfaction. The outcomes and functioning subscale was the strongest predictor of overall satisfaction with an R^2 of .768, $F(1,66) = 212.31$, $p < .000$ (Fig. 2). Social connectedness was the second strongest predictor of overall satisfaction with an R^2 of .688, $F(1, 64) = 141.10$, $p < .000$ (Fig. 3). The quality and participation subscale was similar to the social connectedness subscale as a predictor of overall satisfaction with an R^2 of .624, $F(1,65) = 107.87 = p < .000$ (Fig. 4). Finally, accessibility was the least likely to predict overall satisfaction with a significant but weaker correlation, $R^2 = .462$, $F(1,66) = 56.74$, $p < .000$ (Fig. 5).

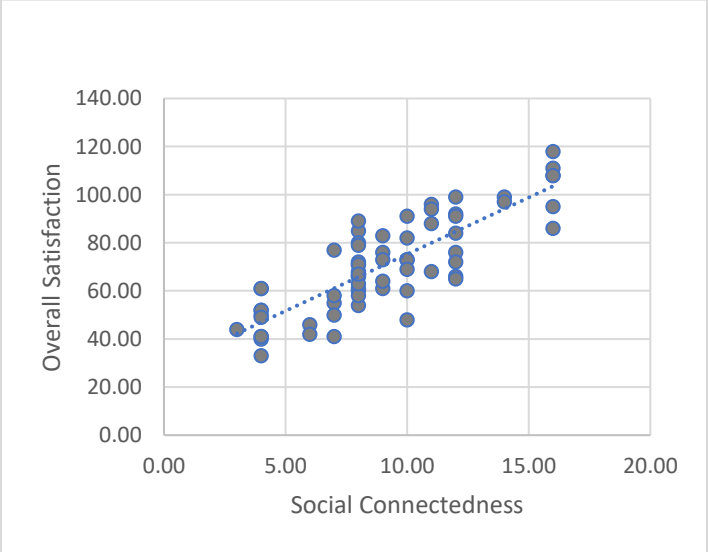


Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.877[a]	0.768	0.765	9.82658	2.184
a. Predictors: (Constant), Outcomes_Functioning					
b. Dependent Variable: OVERALL					

ANOVA[a]					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	20500.492	1	20500.492	212.305	.000[b]
Residual	6179.947	64	96.562		
Total	26680.439	65			
a. Dependent Variable: OVERALL					
b. Predictors: (Constant), Outcomes_Functioning					

Figure 2. A scatterplot showing the relationship between outcomes and functioning and overall satisfaction.

The tables depict the results of the linear regression analysis comparing the independent variable outcomes and functioning with the dependent variable overall satisfaction. Outcomes and functioning revealed an R^2 score of 0.768 indicating a strong positive relationship with overall satisfaction. The ANOVA value 0.000 a significant score and suggests a relationship between outcomes and functioning and overall satisfaction.

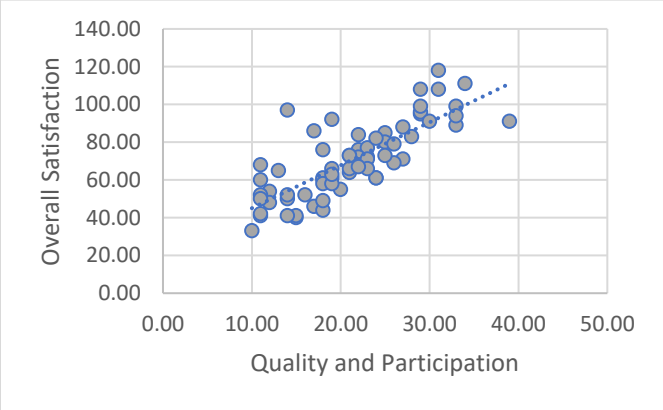


Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.829[a]	0.688	0.683	11.07888	1.977
a. Predictors: (Constant), Social_Connectedness					
b. Dependent Variable: OVERALL					

ANOVA[a]					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	17319.154	1	17319.154	141.102	.000[b]
Residual	7855.467	64	122.742		
Total	25174.621	65			
a. Dependent Variable: OVERALL					
b. Predictors: (Constant), Social_Connectedness					

Figure 3. A scatterplot showing the relationship between social connectedness and overall satisfaction.

The tables depict the results of the linear regression analysis comparing the independent variable social connectedness with the dependent variable overall satisfaction. Social connectedness revealed an R^2 score of 0.688 indicating a strong positive relationship with overall satisfaction. The ANOVA value 0.000 indicates a significant score and suggests a relationship between social connectedness and overall satisfaction.

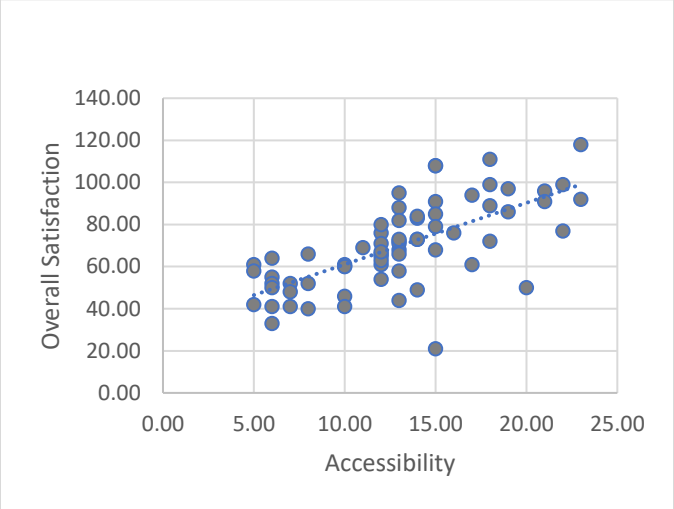


Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.790[a]	0.624	0.618	12.15029	2.316
a. Predictors: (Constant), Quality_Participation					
b. Dependent Variable: OVERALL					

ANOVA[a]					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	15924.742	1	15924.742	107.870	.000[b]
Residual	9595.914	65	147.629		
Total	25520.657	66			
a. Dependent Variable: OVERALL					
b. Predictors: (Constant), Quality_Participation					

Figure 4. A scatterplot showing the relationship between quality and participation and overall satisfaction scores.

The tables depict the results of linear regression analysis comparing the independent variable quality and participation with the dependent variable overall satisfaction. Quality and participation revealed an R^2 score of 0.624 indicating a strong positive relationship with overall satisfaction. The ANOVA value 0.000 indicates a significant score and suggests a relationship between quality and participation and overall satisfaction



Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.680[a]	0.462	0.454	15.08500	1.816
a. Predictors: (Constant), Accessibility					
b. Dependent Variable: OVERALL					

ANOVA[a]					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	12912.462	1	12912.462	56.744	.000[b]
Residual	15018.774	66	227.557		
Total	27931.235	67			
a. Dependent Variable: OVERALL					
b. Predictors: (Constant), Accessibility					

Figure 5. A scatterplot showing the relationship between accessibility and overall satisfaction scores.

The tables depict the results of linear regression analysis comparing the independent variable accessibility with the dependent variable overall satisfaction. Quality and participation revealed an R^2 score of 0.462 indicating a moderate positive relationship with overall satisfaction. The ANOVA value 0.000 indicates a significant score and suggests a relationship between quality and participation and overall satisfaction

4. Discussion:

4.1 Participant Demographics

Participants who identified as male made up approximately 10% of the total number of participants. Although there are more female students on campus (57%) this reflects a large disparity in the representativeness of the sample. This gap is potentially a reflection of the lack of help-seeking behavior among men due to traditional gender roles and subsequent perceived stigma.[44] There are no available statistics on the number of students attending UNCA who identify as non-binary, so it was not possible to determine how well this sample represented the demographics of other gender identities. Likewise, there is no information available on the number of students who attend UNCA who identify as LGBTQIA, so it is unclear whether the sample was representative.

4.2 Satisfaction and Subscales

The general satisfaction rate of 81% is on par with previous research using both the MHSIP and other satisfaction scales.[45] These high ratings of satisfaction may potentially be due to demand characteristics. However, it may also be due to the lack of measurements examining dissatisfaction. All questions on the MHSIP are positively worded and there are no items that require reverse coding. In addition, there may be an element of respondent fatigue that causes participants to agree with the questions regardless of the content.

The averages of the individual subscales of the MHSIP are on par with previous research, which has generally found that individuals report the highest satisfaction with accessibility and quality and participation, while outcomes and functioning is deemed the lowest. The question with the single highest mean was in the outcomes portion, "As a direct result of the services I received here… I am getting along better with my family" (M = 2.95, SD = 1.14). However, satisfaction had the highest score indicating the greatest dissatisfaction, which is a departure from previous research. However, it is important to note that satisfaction had only three questions, and the second highest mean in the whole data set fell within the satisfaction subscale, "If I had other choices, I would still get services from this agency" (M = 2.87, SD = 1.04). The high ratings of dissatisfaction may have skewed the results of the satisfaction mean. Students may have responded poorly to this question given that many may not have other options due to relying on the school insurance plan or being unable to afford other options given that the services at the mental health clinic are free.

Interestingly, male-identifying participants had the highest ratings of satisfaction (M = 6.57, SD = 1.62) although the differences compared to female identifying participants were marginal and not significant (M = 7.47, SD = 2.99). These results contrast with previous research that suggested men were generally less satisfied. However, these results were not significant and could have been mitigated by the small sample size of male participants.

The results indicating that participants who identified as neither male or female reported poorer outcomes and lower levels of functioning were not surprising. Research has shown that individuals who are gender non-conforming experience greater psychological distress due to greater stigmatization.[46] The added pressures that comes with identifying as non-binary might explain why these participants reported greater struggles with outcome and functioning.

Surprisingly, no differences were observed between the different racial and ethnic groups. Similarly, there was no pattern in the responses of white participants indicating they were generally more satisfied with their treatment on any of the subscales. This contradicts previous research that has consistently shown that racial and ethnic minorities are less satisfied with mental health care.[47] This might be the result of small sample sizes with a substantial 61 participants identifying as white compared to 7 non-white participants. Additionally, the Levene's test revealed a non-significant but large amount of variability, which may have contributed to the lack of significant data.

There is a lack of published research examining student satisfaction with university mental health centers so it is unclear whether year in college would have any effect on satisfaction with treatment. While none of the results was significant, given the lack of research it is important to note that seniors reported higher satisfaction on every subscale. This can partially be explained by the fact that seniors were the smallest group, with only seven participants. However, it could also be that seniors may have used the mental health center for a longer period and have had the chance to see the benefits of treatment.

There has not been any published research examining sexual orientation and satisfaction to which the results of this study can be compared. However, the results of the ANOVA indicating that students who were not heterosexual reported lower satisfaction was expected given the historical marginalization and lack of representation of this

population. It is interesting to note that asexual participants indicated the least satisfaction, lowest social connectedness, and poorest outcomes and functioning. This could be due to practitioners' lack of knowledge of asexuality or some of the stigma associated with asexuality, as it is often treated as a medical issue or seen as a disorder in its own right.[48] One study found that asexual identified individuals experienced extreme stress when deciding whether to disclose their sexuality to their practitioner and often perceived a negative response.[49] Likewise, many asexual individuals face stigma due to rejecting society's expectations of sexuality and relationships.[50] This might explain why asexual participants reported poorer outcomes and functioning, and additionally reported feeling less socially connected due to real or perceived stigma from their peers.

The results indicating that individuals who identified as agender/gender neutral had poorer outcomes and functioning compared to the cisgender participants, while disheartening, were not surprising, given the previous results that indicated that individuals who identified as neither gender reported poorer outcomes and functioning. Although not all the participants who identified as agender/gender neutral identified as "neither gender" on the question asking for their gender, four of the five participants who did report neither also identified as agender/gender neutral. Therefore, this result is likely capturing some of the same variability seen in the previous gender category where participants who identified as neither gender reported greater distress. Given this, it is interesting to note that while not achieving significance, agender/gender neutral participants reported feeling less socially connected. Although individuals who identified as neither gender did have lower satisfaction with their social connections, the differences in scores were marginal, suggesting that identifying as cisgender may play a strong role in forming social connections on this particular campus. It is also important to note that due to only one participant identifying as transgender this category could not be analyzed, leaving a gap in research on gender identity and satisfaction.

4.3 Regression Analysis

Most of the research examining the MHSIP survey has focused on testing its reliability and acceptability with participants. The small body of research, however, has indicated that accessibility and quality and participation in treatment are overall the best predictors of satisfaction, while social connectedness and outcomes and functioning are the least likely to predict satisfaction.[51] This study found the complete opposite of this, with outcomes and functioning being the greatest predictor of satisfaction, followed by social connectedness, quality and participation, and then accessibility. This could potentially be explained by the nature of the sample.

Research has not examined college students' satisfaction with their mental health treatment, and some research has indicated differences in the value participants placed on the subscales based on their age. One study found that youth (18 and under) placed more emphasis on social connectedness than adults.[52] Given that the average age of participants when excluding outliers was 20.7 years old, it seems possible that they may identify with some of the same values as youth such as social connectedness. Another potential explanation of the results is that college students may emphasize outcomes and functioning more than other populations due to the pressures of academic achievement and balancing other obligations such as jobs, children, or sports. Another factor to consider is that the mental health center is located on campus making accessibility less of an issue than other community mental health and students view this as a non-issue. However, another aspect of accessibility is availability of appointments and students expressed dissatisfaction with the question, "I was able to see a psychiatrist when I wanted to" (M = 2.70, SD = 1.03). Additionally, qualitative feedback consistently identified appointment times and scheduling issues as an issue. However, this was not reflected in the accessibility scores indicating that the MHSIP questions may not have been worded in a way that captured participants' concerns.

5. Limitations:

5.1 Problems with Satisfaction Measurements

Although satisfaction can be a useful measurement to determine the effectiveness of a clinic, some researchers have argued that satisfaction data does not indicate quality of service. One piece of evidence that supports this is the generally high satisfaction scores that have been found in the majority of the literature and in this study.[53] One study found that approximately 50% of clients who dropped out of treatment reported being generally satisfied.[54] The reason for these high satisfaction scores may be related to high demand characteristics, especially when surveys are administered within the treatment center or in the presence of a healthcare provider.

Another potential criticism of satisfaction is that client expectations are not addressed in relation to their treatment.[55] The expectations of a client may vary widely, and while the questions regarding participation in treatment planning might partially cover this, future research should also address the client's expectations in relation to treatment. Additionally, researchers have questioned the ability of participants to be objective about their treatment.[56]

While the MHSIP is an excellent standard measure of satisfaction that has been used across the country, this measure still has imperfections. There are only three questions addressing general satisfaction which may skew the means for the subscales. Another issue is the lack of reverse scoring which may increase the acquiescence bias and partially explain the high ratings of satisfaction. Future research might address this by altering the wording of questions to allow for reverse scoring and determining how this may affect overall scores. Lastly, given the length of the survey participants might experience respondent fatigue which may skew the results.

5.2 Sampling

While the response rate was not very high (4.1%) it was on par with most other unincentivized response rates. However, the small sample size limits the generalizability of the study. The lack of responses to the paper survey led to an inability to compare the online and paper survey and examine how demand characteristics change when the survey is taken within the physical building and in the presence of staff.

The guidelines provided by SAMHSA indicate that random sampling or stratified random sampling are the ideal sampling methods to use.[57] However, due to time constraints and concerns about confidentiality, convenience sampling was used. Although there was a modest to large variability in participants' sexual orientation and gender identities there was very little diversity in race/ethnicity and gender – with male respondents particularly underrepresented. While this is common given the lack of help-seeking behavior in male identified and minority student, future research should try to capture data from a wider range of ethnicities and genders. Due to the lack of data available on sexual orientation and gender identity, it was impossible to determine whether the sample was representative of the overall population.

5.3 Lack of Comparisons

This survey included only participants from one small public liberal arts institution in the southeast United States, and while the data collected from this survey is useful when examining how a student's characteristics influence their satisfaction with treatment, it cannot be used to accurately evaluate the effectiveness of that single college's mental health center. To determine how satisfied students are with the school's services, the same study should be conducted at analogous schools and the subsequent results compared. Satisfaction cannot be measured in a vacuum, as it often is, and comparisons are essential to draw meaningful conclusions about the efficacy of mental health centers. As such, this study needs to be replicated at other schools not only to compare the efficacy of treatment but also to validate the results obtained regarding student demographics. Additionally, this study needs to be replicated at other colleges to determine whether outcomes and functioning is the single largest contributor to overall satisfaction in college students, or this was due to a Type II error, given that these results refute previous research.

5.4 Statistical Tests

ANOVAs are a useful tool to examine the variation between variables; however, they only examine one variable at a time. A multivariate analysis would have been beneficial as it would have identified the interactions between multiple variables such as race and gender identity. This might have provided a more accurate analysis of how individual characteristics interact to affect satisfaction. Furthermore, linear regression provides helpful information regarding the interaction of an independent variable on a dependent variable, but it does not prove causation. While inferences can be drawn from it, it can not definitively be said that better outcomes and functioning will generate greater satisfaction.

6. Conclusion:

The results of this survey supported previous research as most participants indicated they were satisfied with services. However, differences between ethnicities were not identified due to the lack of diversity in respondents. Further

research should examine a wider range of ethnicities to determine the effects. This research contributed significantly to understanding the experience of clients who identify as non-binary, LGBTQIA, and varying gender identities. Given the results of this study it is clear that attempts need to be made to improve the experience of agender/gender neutral and asexual clients. Research has suggested that practitioners educating themselves, indicating their acceptance of varying identities and sexual orientations, becoming aware of stigma and the fear of a negative reaction from a practitioner, and maintaining an open-minded attitude is the first step to bettering the experience of non-heterosexual or non-cisgender clients.[58] However, these data need to be further examined particularly in regards to transgender individuals as there were not enough respondents to evaluate their clinical experiences. The results indicating that outcomes and functioning were the largest predictors of satisfaction refuted previous research. However, only one other published study has examined this construct. Therefore, future research should evaluate how the subscales of the MHSIP relate to overall satisfaction. Additionally, future research should examine satisfaction using a standardized measure on college campuses to determine the effectiveness of their mental health clinics. This information could be useful in determining the allocation of resources and ensuring that students' needs are being fulfilled.

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