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An Examination of Barriers and Determinates Impacting the Healthcare of Kalamazoo County's Transgender and Non-binary Young Adult Population

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PURPOSE

Emergent young adults are a unique population that face a variety of issues (Arnett, 2016). For transgender or gender non-binary emergent adults, such issues can include a struggle to identify and access healthcare resources (Macapagal et al., 2016). This specific issue can be compounded by a number of other social determinants such as education, socioeconomic status, level of transience, racial identity, and gender identity (Bonnie et al., 2014; Making, 2020). On a national level there is a body of information that demonstrates the impacts gender identity can have on a person's ability to access healthcare resources (Macapagal et al., 2016). Through the use of a survey sampling a cross section of emergent adults within Kalamazoo County, we hope to build a case study examining their ability to identify and use healthcare resources, in addition to the obstacles preventing this population from accessing these resources.

Emergent adults require similar access to healthcare resources when compared to other age groups, despite common misconceptions that state the opposite. In addition, emergent adults experience higher rates of STI prevalence, mental health issues, and substance use disorders (Macapagal et al, 2016). Transgender and non-binary emergent adults are even more impacted by these same health issues (Bonnie et al., 2014; Macapagal et al., 2016). However, there is evidence that suggests transgender and non-binary individuals have a lower rate of utilization of healthcare resources when compared to other populations (Macapagal et al., 2016). Some forms of specialized care, such as reproductive services, are often denied to transgender and non-binary people, because of healthcare providers who harbor transphobic prejudices (Grant et al., 2011; Rossman et al., 2017). These same transphobic prejudices can also manifest as verbal abuse and aggression which creates a hostile environment for transgender and non-binary patients. Even the simple perception of this environment can cause anxiety that dissuades members of these communities from seeking care (Grant et al., 2011; Macapagal et al., 2016; Rossman et al., 2017). This could be in addition to other factors that prevent emergent adults from seeking healthcare in general, such as access to transportation and proper health insurance.

The main question this study is attempting answer is what barriers are preventing transgender and non-binary adults from accessing healthcare resources within Kalamazoo County. Emergent adults are expected to experience an increase in healthcare needs and hopefully experience an associated increase in healthcare resource use (Bonnie et al., 2014). Determining if a relationship exists between healthcare resource needs and use within Kalamazoo County's non-cisgender population is paramount to determining this population's overall access to healthcare resources.

This study seeks to identify the barriers facing transgender and gender non-binary emergent adults within Kalamazoo County. Through the use of a survey, members of this population were given the opportunity to indicate what they perceive to be barriers preventing them from accessing healthcare resources with Kalamazoo County. Also, of interest was the percentage of emergent adults who experienced an increase in both the need and use of healthcare resources within the last five years. Emergent adults commonly experience an increase in healthcare needs without an associated increase in the use of healthcare resources (Bonnie et al., 2014). Finally,

this study seeks to understand how these barriers manifest by examining the ability of participants to identify and use healthcare resources.

There are around 260,000 residents in Kalamazoo County. Overall Michigan is home to sixteen counties with a population between 100,000 and 500,000. This is significant as it encompasses around 19% of all counties in Michigan. Other nearby Mid-Western states have more variation in the number of counties with similar populations such as Ohio (25%), Indiana (17.4%), and Illinois (14.7%)(U.S. Census, 2020). Kalamazoo County is unique in regard to the diversity of emergent adult communities. Home to three institutions of higher learning: Western Michigan University, Kalamazoo College, and Kalamazoo Valley Community College, Kalamazoo County features a significant population of both four-year and non-four-year students. Kalamazoo County also has a significant population of temporary student residents in addition to long-term residents. Also, it is not uncommon for university students to travel across and between states for higher education. We suspect students who travel in such a manner to obtain education may struggle to identify and use healthcare resources when compared to other emergent adults. In addition, to these college-affiliated emergent adults, there is also a population of non-college affiliated emergent adults residing in Kalamazoo County. Because of these features and the prevalence of local LGBT advocacy groups and resources, Kalamazoo County was chosen as the target area for this study with the hope that this case study could be applied to other comparable Mid-Western counties.

LITERATURE REVIEW:

Young adults between the ages of eighteen and twenty-five are developmentally different from both other adults and adolescents. This distinct period of development often serves as the foundation for an individual's economic, social, and health future. Sadly, emergent adults are frequently grouped with older adults in the context of policy making and research, which is a massive disservice to this age group. This is most applicable is healthcare access. Commonly, young adults are thought to be healthier when compared to older adults. However, while this may be true in some areas of healthcare, certain health behaviors and social factors lead to emergent adult populations facing a higher prevalence of issues in certain areas of healthcare such as mental health, reproductive health, and substance use disorder health. Commonly, during this period of life emergent adults leave the social support networks provided by their families and overall possess less access to resources that help to mitigate risky behaviors. These social factors can lead to an increase in certain areas of healthcare that can include and are not limited to mental health, reproductive health, and substance disorder health (Bonnie et al., 2014).

Young adults in the LGBT community encounter overlapping and non-overlapping barriers to healthcare when compared to non-LGBT emergent adults. Often these barriers are the manifestations of chronic and historic marginalization faced by these communities (Halkitis et al., 2020). Research on a national level conducted by both the US Department of Health and Human Services and the National Center for Transgender Equality and National Gay and Lesbian Taskforce has provided evidence of barriers to both healthcare identification and use within the country (Grant et al., 2011; US Department of Health & Human Services, 2010). These barriers can be both general and LGBT-specific. Examples of general barriers can include

health anxiety (Hadjistavropoulos et al., 1998), access to insurance, and access to transportation. LGBT-specific barriers can include expected LGBT discrimination and denial of care (Grant et al., 2011; Rossman et al., 2017; Seelman et al., 2017).

There must be an important distinction made between sexual identity and gender identity. Both commonly and within the context of research, sexual identity and gender have been mistakenly lumped together when assessing LGBT-related health disparities. This has led to considerable gaps in the knowledge base that are currently attempting to be filled (Kieran et al., 2019). However, researchers have begun to compare the health disparities faced by LGB members of the LGBT community and those faced by non-cisgender individuals. What they are finding is that non-cisgender members of the community are facing additional or more severe barriers to healthcare identification and use when compared to cis-gendered young adults (Macapagal et al., 2016).

Within the acronym LGBT the first three terms refer to sexual identities while the last term refers to a gender identity. Specifically, transgender is the term used to describe an individual who does not identify with their gender assigned at birth. However, this term still implies the existence of only two genders and does not properly address individuals who do not identify as either male or female (non-binary). Non-binary individuals are often underrepresented in gender identity specific research, despite being a significant and growing portion of the transgender community. Thus, there is a need to examine healthcare disparities of non-binary individuals compared to both the LGBT community and individuals who do not identify as part of the LGBT community (Kieran et al., 2019).

METHODOLOGY:

Recruiting Participants:

The target population for this study was young adults between the ages of eighteen to twenty-five who self-identify as either transgender or non-binary residing in Kalamazoo County. Collaborations with local LGBT advocacy and university resources groups within Kalamazoo County allowed the survey to be distributed to the target population. Working with local LGBT advocacy groups allowed this study to be presented to young adults from each college/university within Kalamazoo County as well as non-college affiliated young adults. These advocacy groups and university resources include OutFront Kalamazoo, Kaleidoscope at Kalamazoo College, Kalamazoo Valley Community College Student Success Services, and Western Michigan University's Office of Diversity and Inclusion. Special attention was given to ensure that non-college affiliated young adults were surveyed. Non-college affiliated young adults are an important sub-section of the emergent adult population. However, despite comprising a significant portion of this population group, non-college affiliated adults are often underrepresented in studies examining issues facing emergent young adults. This is in contrast to four-year college students who are overrepresented in emergent young adult studies while only representing twenty percent of the emergent young adult population (Arnett, 2016).

Designing the survey:

The survey consisted of sixteen questions. The opening questions collected deidentified demographic information. Examples of demographic information collected include gender-identity, college affiliation, insurance status, age, and habitation status within Kalamazoo County. These questions were included so that the respondent pool could be accurately described in the results section of this study. In addition, these questions confirmed that participants were part of the target population.

In order to assess awareness and use of healthcare resources within Kalamazoo County, healthcare resources were listed in the survey. The provided options in the survey included general healthcare resources from major hospitals in the area. Other resources in the provided list were healthcare resources that specialize in mental health, reproductive health, and substance use disorder health. These resources were specifically provided as emergent adults typically have a greater need for these resources, but have a lower use compared to other age groups (Bonnie et al., 2014; Macapagal et al., 2016). Participants were asked to identify both healthcare resources of which they are aware and healthcare resources they have utilized. Participants were also asked to share others they used or knew of that were not listed. Based on these responses, participants were divided into three groups: those who identified and used 3 or more healthcare resources within Kalamazoo County, those who could not identify five or more healthcare resources within Kalamazoo County, and those who could identify five or more healthcare resources within Kalamazoo County, but did not use three or more healthcare resources within Kalamazoo County.

The final part of the survey included questions designed to identify potential barriers preventing emergent adults from accessing healthcare within Kalamazoo County. Potential barriers addressed in the survey include access to transportation, access to insurance, general anxiety, anxiety regarding LGBT discrimination, access to personal health information, perception of healthcare staff, perceived ability to receive referrals to specialized care, and perceived ability to access healthcare resources addressing mental health, substance use disorders, and reproductive health. Participants individually indicated whether each barrier applied to them. The positive and negative indications of each barrier were averaged to apply a number to that participant. Participants with positive numbers indicated that a majority of listed barriers applied to them, while respondents with negative numbers indicated that majority of the listed barriers did not apply to them.

If no relationship between healthcare needs and use exists, then identifying barriers to increase access to healthcare is important. Two potential factors could prevent a relationship between healthcare needs and use from materializing: an inability to identify healthcare resources and/or an inability to use healthcare resources. If the latter is true, then further work is needed to examine which barriers faced in this population are preventing them from using the healthcare resources they are able to identify. Racial identity has been found to impact an individual's ability to identify and access healthcare resources (Grant et al., 2011), therefore, this study sought to also determine if racial identity influenced our sample's ability to identify or access healthcare resources.

Analyzing results:

The frequency of indication for each barrier was recorded in order to determine which barriers are prevalent within our sample. The number of healthcare resources identified and used by each participant were also recorded. Participants were asked if they experienced an increase in healthcare resource needs and an increase in healthcare resource use. Emergent young adults typically experience an increase in healthcare needs, but do not experience an increase in healthcare resource use.(Bonnie et al., 2014). One of the main goals of this study was to determine if this applies to Kalamazoo County's non-binary and transgender young adult populations.

The number of barriers for each participant was also recorded to allow for comparison between different sub-sections of the participant pool. The t-test was used assuming unequal variance to determine if other potential factors influenced the responses of the participants. Racial identity, college affiliation, and academic class status (freshman, sophomore, junior, senior) were intentionally chosen for this purpose. Current research suggests that racial identity does impact an individual's ability to access healthcare resources within the LGBT community (Grant et al. 2011; US Department of Health and Human Services, 2010) and we wanted to determine if this applied to our subject pool as well. College affiliation and academic class status was also analyzed as we suspect that they may impact the number of barriers faced by the non-cisgender community, but there is no research we aware of that addresses this. For college affiliation, participants were organized into two groups: the first consisting of students from Western Michigan University and Kalamazoo College, the second group was comprised of Kalamazoo Valley Community College and non-college affiliated adults. This distinction was made as Western Michigan University and Kalamazoo College are not community colleges. Academic class status was determined by asking participants how many years of college they completed; if they answered three or more years, then we categorized them as upperclass-people.

RESULTS

Fourteen of the twenty-five participants identified as non-binary with the remaining number self-identifying as transgender. In total twenty-nine participants began the survey; the total number of complete responses for our target population was twenty-five. Twelve participants self-identified as White (48%), two participants identified themselves as Black/African American (8%), two participants identified themselves as Asian (8%), one participant identified themselves as Hispanic (4%), and the remaining three participants (12%) either did not identify with any prior options or did not complete this survey question. Thirteen out of the twenty-five participants indicated that they were either long- or short-term residents of Kalamazoo County, while the remaining twelve stated that they were college students residing in Kalamazoo part-time. Participants who identified themselves as current college students were also prompted to indicate the number of years spent in college/university in Kalamazoo County. The majority of students indicated that they attended college/university for three or more years (60%) compared to students that attended college/university for less than three years (40%). The most common insurance status indicated in the survey was private insurance with seventy-nine percent of the

respondents indicating they were on private insurance. Overall, only 4.17% of participants indicated that they were uninsured.

Students from Western Michigan University, Kalamazoo College, and Kalamazoo Valley Community College fully completed this survey in addition to non-college affiliated adults. Most respondents were students of Western Michigan University (48%), followed by Kalamazoo Valley Community College (20%), non-college affiliated (20%), and Kalamazoo College (12%). Twenty participants identified themselves as current college students and provided the number of years they have attended.

Table 1 (below)

Demographic characteristics of the sample population

Important Demographic Information from the Participant Sample	%(n)
Non-binary	56% (14)
Transgender	44% (11)
White	48% (12)
Non-white	20% (5)
Western Michigan University	48% (12)
Kalamazoo Valley Community College	20% (5)
Non-college affiliated	20% (5)
Kalamazoo College	12% (3)
Private health insurance	76% (19)
Public health insurance	8% (3)
Self-paid health insurance	4% (1)
No health insurance	4% (1)
Age in years	%(n)
18	0% (0)
19	4% (1)
20	16% (4)
21	16% (4)
22	16% (4)
23	12% (3)
24	16% (4)
25	12% (3)

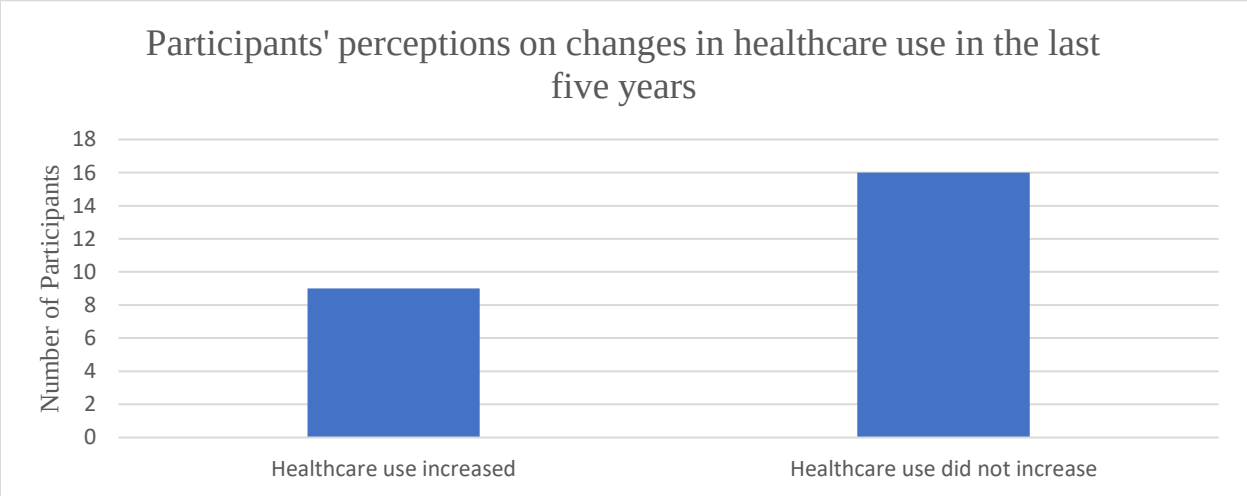
Table 2 (below):

Positive indication of perceived barriers

Barrier	Number positive indications %(n)
General Anxiety	52% (13)
Inadequate access to specialty care	48% (12)
Over-reliance on emergency care	48% (12)
LGBTQ-specific anxiety	40% (10)
Inadequate access to mental health resources	28% (7)
Inadequate access to general health resources	24% (6)
Inadequate access to transportation	24% (6)
Inadequate access to personal health records	20% (5)
Inadequate access to health insurance	12% (3)
Perception of staff professionality	12% (3)
Inadequate access to reproductive health resources	12% (3)
Perception of staff acceptance	8% (2)
Inadequate access to substance use disorder resources	8% (2)

Table 3 (below):

Participant's perception on changes in healthcare use in the last five years



Seventeen participants stated that their healthcare needs increased within the last five years. Nearly half of these respondents did not indicate a concurrent increase in the use of healthcare resources within that same time period, indicating that their use of healthcare resources either remained unchanged or even decreased. Around one third of respondents did not report an increase in the need for healthcare resources.

Table 4 (below):

An Examination of Barriers and Determinates Impacting the Healthcare of Kalamazoo County's Transgender and Non-binary Young Adult Population

Comparison of the Impacts of Racial Identity, College Affiliation, and Academic Class Status on

Resource Awareness	t	df	Sig (2-tailed)	Mean difference	Std. error difference
Racial identity	2.201	11	0.496	0.792	1.025
College affiliation	2.08	21	0.178	1.24	0.356
Academic class status	2.201	11	0.265	1.292	1.051

There was not a significant difference in the number of resources identified by White participants (M=5.833, SD=1.8) and non-White participants (M=6.625, SD=2.825) conditions; t(11)=2.201, *p*=0.496. There was not a significant difference in the number of resources identified by Western Michigan University students and Kalamazoo College students (M=5.667, SD=2.38) and Kalamazoo Valley Community College students and college non-affiliated emergent adults (M=6.9, SD=2.025) conditions; t(21)=X, *p*=0.178. There was not a significant difference in the number of resources identified by upperclass-people (M=3.417, SD=2.065) and underclass-people (M=3.25, SD=3.059) conditions; t(11)=2.201, *p*=0.265.

Table 5 (below):

Comparison of the Impacts of Racial Identity, College Affiliation, and Academic Class Status on Number of Perceived Barriers

Number of Barriers	t	df	Sig (2-tailed)	Mean difference	Std. error difference
Racial identity	2.16	13	0.297	1.292	1.234
College affiliation	2.145	14	0.593	0.6	1.062
Academic class status	2.201	11	0.895	0.167	0.995

There was not a significant difference in the number of barriers faced by White participants (M=3.083, SD=2.234) and non-White participants (M=4.375, SD=1) conditions; t(13)=2.16, *p*=0.297. There was not a significant difference in the number of barriers faced by Western Michigan University and Kalamazoo College students (M=3, SD=2) and Kalamazoo Valley Community College students and non-college affiliated emergent young adults (M=3.6, SD=3.062) conditions; t(14)=2.145, *p*=0.593. There was not a significant difference in the number of barriers faced by upperclass-people (M=3.417, SD=2.065) and underclass-people (M=3.25, SD=3.059) conditions; t(11)=2.201, *p*=0.895

DISCUSION and CONCLUSION:

One of the primary purposes of this study was to determine if a relationship exists between a change in healthcare resource needs and healthcare resource use. Our data cannot support such a relationship. This is common and expected when discussing young adults their relationship with the current healthcare system (Bonnie et al., 2014). Seventeen participants stated that their healthcare needs increased within the last five years. Nearly half of these respondents did not indicate a concurrent increase in the use of healthcare resources within that same time period, indicating that their use of healthcare resources either remained unchanged or even decreased. Around one third of respondents did not report an increase in the need for healthcare resources. There is little evidence to suggest a relationship between increasing healthcare needs and increasing healthcare use within the data pool. This is similar to other research on emergent adults who both identify as cisgender and do not identify as cisgender (Macapagal et al., 2016).

Within our sample non-LGBT-specific barriers occurred most frequently with general anxiety being the most frequent. Other noteworthy observations indicated by the participants included perceived inadequate access to specialty care and an over-reliance on emergency healthcare resources. This information indicates that young non-cisgender adults in Kalamazoo County are facing issues in receiving both specialty and general care, which is alarming and significant. LGBT-specific anxiety as a perceived barrier to healthcare was indicated by around forty percent of participants. This was also the most prevalent, LGBT-specific barrier to healthcare (fourth most prevalent overall). Despite non-LGBT-specific barriers to healthcare being more prevalent LGBT- specific barriers to healthcare still existed within our sample and should not be dismissed as insignificant. Also, the majority of participants who indicated facing LGBT-specific barriers to healthcare also faced general barriers to healthcare. This suggests that this population’s status as part of the LGBT community exacerbates current healthcare access related problems faced by all young adults of Kalamazoo County.

Racial identity does not appear to impact both the ability of participants to identify healthcare resources and the number of barriers to accessing healthcare experienced by each participant. This is contrary to other research conducted at the national level, which suggests that racial identity does impact healthcare resource access (Grant et al., 2011), Academic class status and college affiliation also do not appear to significantly impact the number of barriers to healthcare faced by the members of our sample. This is important as there is not a large body of research studying the impact of college affiliation and academic class status on the barriers to healthcare faced by certain populations.

Our data suggests that academic class status, college affiliation, along with racial identity are not significant determinates in terms of resource identification. We suspected academic class status and college affiliation to significantly impact participant’s ability to identify healthcare resources within Kalamazoo County. We suspected this because we assumed that college affiliation and academic class status in part determined participants’ familiarity with Kalamazoo County and its healthcare resources. However, the data we collected from Kalamazoo County’s transgender and non-binary community does not support our original speculations.

LIMITATIONS:

More data is necessary to confirm the relationships and observations noted in the collected data. Currently, as it stands this data shows that certain populations were either over-sampled or under-sampled. One example that supports this is the percentage of respondents who indicated they were insured. Only four percent of respondents indicated they did not have health insurance, which is about two percent lower than the United States Census Bureau's Small Area Health Insurance Estimates: 2018 and is well outside of the that study's margin of error which is 0.7% (Walton & Willyard, 2020). This can also be seen in other sections of the demographic information collected, such as the ratios of racial identifies. White respondents are represented more than three times as much as any other racial option offered in this survey. Despite comprising a majority of respondents, participants who self-identified as White encompassed only forty-eight percent of participants, which is significantly lower than the United States Census Bureaus estimates which indicate that eighty-one percent of the county's population is white. However, every provided racial category has at least one participant. Despite this limitation, the over-sampling of other racial identities may be a positive as it allowed this study to examine the impact racial identity has on the likelihood of transgender and non-binary emergent adults encountering barriers while seeking healthcare in Kalamazoo County. However, this benefit can be retained while addressing the error by increasing the sample size of the survey.

When upperclass-people are compared to underclass-people there does not appear to be a difference in their ability to either identify or access healthcare resources or in the number of barriers to healthcare. This is unexpected, I think that it would be expected that upperclass-people would at the minimum perform better when identifying resources, because they spend more time on campus and in the community. One explanation for this is that the majority of underclass-people who completed the survey also identified themselves to be residents of Kalamazoo County which is not the case for upperclass-people. Collecting more data would allow for this relationship to be confirmed or discredited.

In general, the size of the participant pools is particularly limiting in regard to the statistical tests used in this study. The changes between the sub-populations of this study do not occur at a frequency or intensity that allows for meaningful results to emerge. This is supported by the results of our t-tests which fail to show any significant relationships. In some cases, the absence of these significant relationships run contrary to the wider pool of information available at the national level (Grant et al., 2011; Macapagal et al., 2016). Therefore, despite the conclusions drawn for our data we should not assume that any of the relationships (or lack thereof) derived from this study to be certain.

While this study can provide evidence of some barriers impacting non-binary and transgender from receiving healthcare, it cannot differentiate which barriers are specific to this population group and which barriers are not. Collecting survey responses from cisgender emergent young adults in addition to transgender and non-binary emergent young adults could address this issue.

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