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Mental Health and Substance Use: Influence On Body Image and Lifestyle Across Sexual Identities

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ABSTRACT
Mental health and substance use are critical determinants of body image and lifestyle, shaped by social and cultural contexts across sexual identities. This study examined their influence among 692 individuals in the Second District of Batangas, including lesbians, gay men, bisexuals, transgender individuals, and heterosexuals. A descriptive-correlational design was employed using standardized tools (AUDIT, DUDIT, BDI-II, GAD-7, BAS-1) and a lifestyle questionnaire based on WHO guidelines. Results revealed that all groups experienced moderate depression, with bisexual and straight female respondents obtaining the highest mean scores, suggesting greater vulnerability to stigma and societal pressures. Transgender individuals reported heightened concern for health and lifestyle, while heterosexual respondents achieved higher lifestyle scores than LGBT counterparts. Correlation and regression analyses demonstrated significant associations among mental health, substance use, body image, and lifestyle, indicating that depression, anxiety, and alcohol or drug use negatively affect health behaviors and self-perceptions.

Keywords: mental health, substance use, body image, lifestyle, sexual identity

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The Problem and Its Background

Men typically consume more calories than women and exhibit distinct eating patterns due to gendered socialization. For example, women tend to eat more slowly, take smaller bites, and choose foods that are lower in calories. Men, on the other hand, like meals that have meat in them and usually eat more. These actions show what people think about being a man or a woman (Parker & Harriger, 2020; Shepherd et al., 2023). Women undergo heightened internal conflict regarding food, characterized by intensified cravings for high-calorie items while simultaneously facing societal pressure to limit consumption. Lesbian women in sexual minority groups often exhibit reduced dietary restraint and a lesser internalization of thin ideals, likely due to their association with more masculine gender expressions, which alleviates the pressure to conform to traditional feminine appearance standards (Parker & Harriger, 2020; Marshall et al., 2023). Conversely, gay men frequently contend with significant body image concerns and exhibit heightened sensitivity regarding their weight and body shape due to cultural standards that prioritize slender or petite physiques. This results in increased dieting, food restriction, and eating disorders (Cassidy et al., 2023;

Shepherd et al., 2023). The World Health Organization (WHO) says that the third goal of the Sustainable Development Goals (SDGs) is to "make sure that everyone, no matter how old they are, lives a healthy life and promotes their well-being." By 2030, the goal of 3.4 is to cut the number of people who die early from non-communicable diseases by a third by treating and preventing them. It aims to improve people's mental and physical health. Recent global surveys indicate an increasing diversity in sexual orientation and gender identity. For instance, a 2021 Ipsos Group study in 27 countries found that 80% of people said they were heterosexual, 3% said they were gay or lesbian, 4% said they were bisexual, and 1% each said they were pansexual, omnisexual, or asexual. 11% were uncertain or unwilling to disclose. According to Ipsos (2021), younger individuals, particularly those belonging to Generation Z, are more inclined to identify as bisexual compared to older demographics. Fleck (2024) stated that 11% of individuals in the United States and the Philippines identify as LGBT+. Canada and Thailand each represent 10%. Lesbian, gay, bisexual, and transgender (LGBT) individuals demonstrate perseverance in maneuvering through the complexities of a culture that is both inclusive and discriminatory. Body image refers to individuals' perceptions, emotions, and behaviors regarding their appearance. It profoundly influences mental health, life choices, and overall quality of life (Tylka, 2024). Your lifestyle significantly influences your overall health. This entails attending to your mental well-being, maintaining a nutritious diet, engaging in physical exercise, and socializing with friends. Research indicates that LGBT individuals, particularly those who are transgender, nonbinary, or lesbian, exhibit a higher propensity for developing eating disorders and engaging in disordered eating behaviors compared to heterosexual and cisgender individuals (Schlapp-Gilgoff, 2023; Parker & Harriger, 2020). For instance, 34.7% of lesbian adults have been diagnosed with a full syndrome eating disorder, and many more are still at a high risk of getting one. Women from sexual minorities are more likely to binge eat, purge, and follow strict diets (Parker & Harriger, 2020). These findings underscore the necessity for a comprehensive understanding of the interconnections between mental health, substance use, body image, and lifestyle across various sexual identities to enhance the inclusivity of health interventions. The researcher, an educator and healthcare practitioner, conducted this study to examine the effects of mental health and substance use on body image and lifestyle, while also investigating the variations of these effects among gay, lesbian, bisexual, transgender, and heterosexual individuals. Despite growing awareness of LGBT issues, there isn't enough data in the Philippines about how mental health and drug use affect body image and lifestyle choices, especially among Filipinos with different sexual identities.

Furthermore, research is scarce in the local context, especially in provincial areas, analyzing these interrelated issues. To address this gap, the present study utilized data from the Provincial Government of Batangas to examine and compare the body image perceptions and lifestyle patterns of LGBT and heterosexual individuals across five municipalities. The results aim to improve understanding of these issues, providing evidence that may inform culturally sensitive health interventions and policies.

Statement of the Problem

The main objective of this study is to determine the influence of mental health and substance misuse on body image and lifestyle across genders and sex identities.

Specifically, this will seek answers to the following questions:

1. What is the mental health status in terms of anxiety and depression of the following sexual identity groups:

a. Lesbian;

b. Gay;

c. Bisexual;
d. Transgender;
e. Straight male; and
f. Straight female?
2. What is the extent of substance use in terms of alcohol and drugs among the following sexual identity groups:
a. Lesbian;
b. Gay;
c. Bisexual;
d. Transgender;
e. Straight male; and
f. Straight female?
3. What is the body image of the following sexual identity groups:
a. Lesbian;
b. Gay;
c. Bisexual;
d. Transgender;
e. Straight male; and
f. Straight female?
4. What is the lifestyle in terms of nutrition and physical activity among the following sexual identity groups:
a. Lesbian;
b. Gay;
c. Bisexual;
d. Transgender;
e. Straight male; and
f. Straight female?
5. Is there a relationship among the following variables across individuals from different sexual identity groups;

a. Mental health and body image and lifestyle;
b. Substance use and body image and lifestyle?

6. Which of the following variables significantly influence body image of individuals from different sexual identity groups?

a. mental health
b. substance use

7. Which of the following variables significantly influence the lifestyle of individuals from different sexual identity groups?

a. mental health
b. substance use

8. Is there a significant difference in the body image and lifestyle of individuals from different sexual identity groups, considering their age?
9. What lifestyle modification program can be developed based on the results of the study?

Null Hypothesis

1. There is no significant relationship the following variables across individuals from different sexual identity groups:

a. Mental health and body image and lifestyle

b. Substance use and body image and lifestyle

2. None of the following variables significantly influences the body image of individuals from different sexual identity groups:

a. Mental health

b. Substance use

3. None of the following variables significantly influences the lifestyle of individuals from different sexual identity groups:

c. Mental health

d. Substance use

4. There is no significant difference in the body image and lifestyle of individuals from different sexual identity groups, considering their age.

Significance of the Study

The findings of this study will contribute to a deeper understanding of the mental health and lifestyle challenges faced by sexual minority groups, particularly in a Philippine context where stigma, limited resources, and cultural norms may impact well-being. It will also shed light on how body image concerns and substance use differ across sexual identities and how these may influence lifestyle choices, particularly nutrition and physical activity.

Specifically, this study will benefit the following:

To **People who are LGBT and straight**. The study's process and results will help people understand how mental health and substance use affect their body image and way of life. This will give them the power to ask for help and make healthier choices.

To the **Public Health Professionals and Counselors**. The results of this study can provide data-driven insights that can be used to design targeted interventions or programs addressing the psychological and behavioral needs of different sexual identity groups.

To the **local government and policymakers**. The findings of this study can provide empirical evidence to inform health policy development, including inclusive mental health services, nutrition education, and substance use prevention strategies tailored for both LGBT and heterosexual populations.

To educators and school-based health programs, this study can assist universities in implementing more inclusive and evidence-based health promotion initiatives for students of all gender identities and sexual orientations.

To the **Philippines' Adventist University**. This will be a very important tool for helping people of all sexual orientations deal with problems, encouraging acceptance, and filling in the gaps in research on mental health and substance use. The results can help improve laws, schools, and support services, as well as help people understand and reduce stigma. This study is very important for both intellectual and practical reasons. It will help people who have been ignored.

To the **future researchers.** This study will provide essential data and relevant insights concerning body image and lifestyle. This may serve as a foundation for subsequent research on intersectional health determinants, particularly within Filipino populations.

Scope and Limitations

This study examined the interplay of mental health, substance use, body image, and lifestyle across diverse sexual identity groups. The assessment specifically evaluated the mental health status, concentrating on sadness and anxiety, the level of drug use, body image, and lifestyle habits, including diet and physical exercise, among those identifying as lesbian, gay, bisexual, transgender (LGBT), straight male, and straight female.

The study aimed to identify significant associations, measure the magnitude of effect, and examine the variations between mental health and substance use as independent variables and body image and lifestyle as dependent variables among these groups. The research sought to offer a holistic picture of the interplay and variation of mental health, body image, lifestyle, and drug use across different sexual identities.

The data for this study were collected from August 12 to August 27, 2025, involving six hundred ninety-two (692) individuals from diverse sexual identity categories, all residing in the 2nd District of Batangas, with LGBT participants affiliated with the LGBT group. The conventional guideline for regression sample size stipulates that groups should have a minimum of forty (40) respondents to yield statistically significant findings. Results derived from smaller cohorts were meticulously examined, as constrained sample sizes may compromise the reliability of estimates and diminish the generalizability of findings beyond the current sample.

The study utilized a compilation of instruments developed by the researchers. A self-developed questionnaire was utilized to evaluate lifestyle, including nutrition and physical activity. Concurrently, standardized questionnaires were utilized to assess body image, mental health (depression and anxiety), and substance use (alcohol and drugs). To enhance data collection, the researcher partnered with the presidents and officials of LGBT groups throughout the five towns of the 2nd District of Batangas.

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Review of Literature

This literature review is related to variables involved in this study, mental health and substance misuse, and their influence on body image and lifestyle across genders and sex identities. This chapter provides an in-depth discussion of the interrelationships between the variables. This chapter examines the research paradigm, theoretical framework, and definitions of terminology to facilitate understanding of this study.

Mental Health

Yuko (2025) says that eating less ultra-processed foods can help you feel better mentally, lift your mood, give you more energy, and help you lose weight. These factors might enhance your body image and increase your motivation to exercise. This illustrates the strong interconnection between food, mental health, and physical health. Following a reduction of nearly 50% in ultra-processed food consumption, participants in the research saw significant health enhancements, including increased energy levels and an average weight loss of 7.7 pounds. Study participants also reported other health benefits, including better skin, less swelling in their limbs, improved mood, and more energy.

A recent study underscores the heightened vulnerability of sexual and gender minority communities to mental health issues, such as depression and anxiety. A population-based study in Hong Kong by Chan et al. (2020) found that bisexual individuals had significantly worse mental health outcomes than gay and lesbian individuals. Sexual identity, stress, and a lack of community connection were two important reasons for this. Complementing these findings on a broader scale, Colizzi et al. (2023) conducted a systematic review and meta-analysis that established a consistently higher global prevalence of depression

and anxiety among sexual and gender diverse populations compared to heterosexual and cisgender groups. These results highlight both localized and global disparities, emphasizing the importance of addressing identity stress and structural inequities through inclusive, context-sensitive mental health interventions.

In a separate study, Jagemann et al. (2024) examined gender disparities in mental health treatment preferences using a nationally representative sample of 2,108 participants in Germany. Their findings revealed that cost was the foremost factor in treatment selection, followed by provider, content, and wait time. Women prioritize the provider more than men, whilst men emphasize cost and reduced wait times to a greater extent. Despite technological advancements in healthcare, just 8% of participants preferred AI-based therapy over traditional face-to-face therapy. The analysis highlights the ongoing demand for affordable, human-delivered mental health treatments and suggests that, despite technological advancements in healthcare, just 8% of participants preferred AI-based therapy over traditional face-to-face therapy. The research highlights the ongoing demand for affordable, human-delivered mental health care and suggests that while AI-driven apps may help alleviate therapist shortages, they are unlikely to meet the growing need on their own. These findings emphasize the necessity of matching digital interventions with user expectations while simultaneously enhancing access to human-centered care. Although driven applications may assist in mitigating therapist shortages, they are unlikely to independently satisfy the increasing need. These results underscore the imperative of aligning digital interventions with user expectations while concurrently improving access to human-centered care.

Mental health is a complex issue that requires a nuanced understanding of gender disparities in service utilization and help-seeking behaviors. This knowledge is crucial for developing legislation and initiatives that raise awareness and improve the accessibility of mental health care. Effective mental health interventions contribute to maintaining healthy relationships, preventing disease progression, managing symptoms, boosting productivity, and combating cultural stigma. Gender norms, socialization patterns, stigma, and deeply rooted beliefs regarding gender inequality significantly influence disparities in mental health experiences and help-seeking behaviors. A secondary analysis of 50 articles (2014–2024) from databases including PubMed, Google Scholar, ScienceDirect, and Frontiers investigated these gender-based disparities. The results showed that women in Western countries were more likely than men to seek mental health care and were more aware of mental health issues. Men were less likely to seek help. Women in places like India, on the other hand, had a hard time getting care because they couldn't read or write well, didn't have much education, and were discriminated against because they were women. This made it harder to get mental health care and more embarrassing to do so. Mobile clinics could help fill these gaps by bringing mental health care and education to places that are hard to reach. This would make it easier for everyone to get the help they need, especially women who are already at a disadvantage. Increasing funding for mental health research and advocating for policy reforms can also help bridge the gender gap and enhance the accessibility of mental health services globally (Kaushik & Sethi, 2024).

A recent study consistently highlights the unequal cost of mental health challenges faced by sexual and gender minority groups, with stress-related processes being crucial. Fredriksen-Goldsen et al. (2021) performed a systematic review and meta-analysis demonstrating significantly heightened levels of depression, anxiety, and psychological distress in sexual and gender minorities compared to heterosexual and cisgender individuals, attributing these disparities to minority stress, discrimination, and social exclusion. Persson et al. (2022) conducted a meta-analysis on bisexual populations, revealing that bisexual persons exhibited higher levels of sadness and anxiety compared to their heterosexual and gay/lesbian

counterparts. The authors highlighted bisexual-specific stresses, including erasure, stigma, and absence of community belonging, as significant factors contributing to these discrepancies. Richardson et al. (2024) examined gender disparities in depression risk, highlighting the impact of social stressors—namely, socioeconomic deprivation, caregiving responsibilities, and gendered expectations—on vulnerability to depression. These findings demonstrate how structural disparities and identity-related stresses may converge to produce numerous vulnerabilities. This illustrates the significance of implementing treatments that are both identity-sensitive and socially responsive.

Seven (7) Essential Books on LGBTQ+ Mental Health for Pride Month (2022) shared that people who are identified as part of the LGBTQ+ community are at greater risk of anxiety, depression, and other mental health issues due to discrimination, harassment, rejection, and judgment they may experience in society. The most important way to advocate for LGBTQ+ mental health is to get educated and understand more about it. A report from The Trevor Project (2025) says that LGBTQ+ youth in the United States have a much higher rate of mental health problems than other groups, but they have a hard time getting care because of political and social issues. The findings underscore the pressing necessity for supportive surroundings, inclusive policies, and extensive federal safeguards to ensure the mental well-being of LGBTQ+ adolescents.

An article by Russell and Fish (2016) stated that U.S. and international studies consistently conclude that LGBT youth report elevated rates of emotional distress, symptoms related to mood and anxiety disorders, self-harm, suicidal ideation, and suicidal behavior when compared to heterosexual youth. During the past two (2) decades, there have been not only dramatic shifts in public attitudes toward LGBT people and issues but also an emergence of research from multiple and diverse fields that has created what is now a solid foundation of knowledge regarding mental health in LGBT youth. As a result of this study, there are preliminary but consistent indications that bisexual youth are among those at higher risk for mental health problems. Some youth have fewer intrapersonal skills and resources to cope with minority stress experiences or may develop maladaptive coping strategies as a result of stress related to experiences of discrimination and prejudice. It is found that same-sex-attracted adolescents were more likely to contemplate and demonstrate poorer emotional awareness compared to heterosexual peers; this lack of emotion regulation was associated with later symptoms of depression and anxiety.

Anxiety

Recent studies have progressively shown higher levels of anxiety among transgender and gender-diverse persons compared to their cisgender counterparts. Misedah-Robinson et al. (2024) found that transgender and gender-diverse individuals had significantly higher levels of anxiety and depressive symptoms, underscoring the heightened psychological vulnerability associated with gender minority status. In addition, Restar et al. (2024) established that exposure to anti-trans policy contexts in the United States was significantly correlated with heightened anxiety and depression among transgender people, underscoring the impact of structural stigma on mental health outcomes. In the Philippines, the 2024 National Survey on the Mental Health of LGBTQ+ Young People, executed by The Trevor Project in partnership with the Psychological Association of the Philippines, similarly indicated distressingly elevated levels of anxiety among LGBTQ+ youth, coupled with instances of discrimination, bullying, and

insufficient supportive environments. These studies demonstrate how structural factors, such as discriminatory policies and social stressors, including stigma and exclusion, converge to heighten anxiety risks among transgender and broader LGBTQ+ populations, highlighting the pressing necessity for inclusive policies and community-oriented mental health support.

Adwas et al. (2019) explored the multifaceted nature of anxiety disorders, which are the most prevalent mental health conditions. These health conditions are characterized by disturbances in mood, cognition, behavior, and physiological functioning. Anxiety disorders encompass panic disorder, agoraphobia, generalized anxiety disorder, specific phobias, social anxiety disorder, obsessive-compulsive disorder, acute stress disorder, and post-traumatic stress disorder. The review emphasized critical elements of anxiety, encompassing its symptoms, genesis, pathophysiology, and therapeutic strategies. Typical manifestations of anxiety include sleep disruptions, attention difficulties, social and vocational impairment, restlessness, irritability, muscular tension, tiredness, and a sensation of mental "blankness" under stress. Anxiety's genesis is multifaceted, involving stress, genetic predispositions, environmental factors, physical health disorders such as diabetes, and concomitant depression. From a pathophysiological perspective, anxiety disorders are linked to disruptions in central nervous system modulation. Reduced serotonin activity and heightened noradrenergic system activity are considered pivotal in its development. This supports the utilization of pharmaceutical therapy, including selective serotonin reuptake inhibitors (SSRIs) and serotonin-norepinephrine reuptake inhibitors (SNRIs), as main therapies. Corticosteroids are believed to influence neuronal circuits, regulating stress-related behaviors and fear processing in the brain. Recent data indicate a correlation between anxiety and hematological inflammatory markers. Individuals with anxiety have elevated white blood cell (WBC) counts and an increased red cell distribution width (RDW); however, they demonstrate diminished red blood cell indices. These connections highlight the possible physiological foundations of anxiety that transcend conventional psychological models. This paper highlights the complex interaction of biological, psychological, and environmental components in the development and treatment of anxiety disorders, advocating for a comprehensive strategy in clinical care and future research. Red blood cell indices. These connections underscore the potential physiological underpinnings of anxiety that exceed traditional psychological frameworks. This paper emphasizes the intricate interplay of biological, psychological, and environmental factors in the etiology and management of anxiety disorders, promoting a holistic approach in clinical practice and future investigations.

Hohls et al. (2021) performed a systematic review examining the longitudinal association between anxiety, depression, and quality of life (QoL) utilizing data from observational studies. The review involved a comprehensive search of five electronic databases—PubMed, PsycINFO, PSYNDEX, NHS EED, and EconLit—supplemented with forward and backward citation searches to identify relevant material. A narrative synthesis was conducted alongside a random-effects meta-analysis for studies employing the mental and physical summary scores (MCS, PCS) obtained from the Short Form Health Survey. This review was pre-registered with PROSPERO and followed a written study method. There were 47 studies in all, each with a different research question and sample size (from 28 to 43,093 participants). Narrative synthesis indicated a trend in which quality of life (QoL) was diminished before the emergence of anxiety or depression, further declined during the progression of these disorders, and subsequently improved upon remission. Nonetheless, post-remission, QoL continued to be inferior relative to healthy controls. The meta-analysis included eight studies, producing aggregated estimates of QoL at follow-up, which exhibited effect sizes ranging from small to large. These estimates showed that QoL at

follow-up depended on the disorder's status at the beginning and how it changed over time. Baseline MCS scores varied among groups classified by disorder progression, with effect sizes being more significant for MCS than for PCS. The results emphasize the significance of prevention and effective treatment for anxiety and depression to improve quality of life. The authors suggest that forthcoming research should investigate individual quality of life domains, particular anxiety and depressive disorders, and their trajectories to facilitate more nuanced insights in subsequent meta-analyses.

Berutu and Mutiawati (2023) performed a qualitative study to investigate the phenomenon of learning anxiety and its effects on the mental health of final-year students. Anxiety was defined as an intensified perception of fear and excessive concern, frequently associated with the belief that adverse outcomes are forthcoming. Learning anxiety, specifically, refers to the fear and stress that people experience in high-pressure academic settings, typically arising from a blend of internal and external environmental influences. The researchers employed a descriptive qualitative methodology, gathering data via interviews and observations at Universitas Islam Negeri Sumatera Utara. Their research included three final-year students who exhibited varying levels of learning anxiety, which had considerable consequences for their mental health. Two of these participants had severe learning anxiety, which caused physical and mental health problems, such as shortness of breath and trouble sleeping, that made it hard for them to do everyday things. The third participant exhibited generalized learning anxiety, predominantly marked by apprehension regarding possible negative consequences, a relatively prevalent phenomenon among students. The findings underscore the significant influence of excessive learning anxiety on mental and physical health, underscoring the necessity for targeted interventions to alleviate its effects and enhance student mental health, especially during periods of heightened academic stress. This study emphasizes the significance of mitigating learning anxiety as a crucial element in fostering academic achievement and overall well-being.

Xi (2020) conducted a concept analysis of anxiety, addressing its growing prevalence in an increasingly dynamic social environment. With modern life accelerating and societal changes intensifying, anxiety has become a common experience worldwide, with a rising number of individuals affected. While anxiety may be mild and transient in some cases, in others, it persists over time, potentially leading to severe physical and mental health impairments. In healthcare contexts, anxiety is particularly notable among patients, as it can significantly impact medical outcomes. For this reason, healthcare professionals, especially nurses, must have a thorough understanding of anxiety to help maintain both physical and psychological well-being in their patients. The study utilized Walker and Avant's method for concept analysis, extracting key attributes of anxiety from contemporary literature. According to the Cambridge English Dictionary, anxiety is defined as “an uncomfortable feeling of nervousness or worry about something that is happening or might happen in the future.” Supporting this, Bouras and Holt described anxiety as arising when individuals anticipate potential danger, creating feelings of discomfort and worry. Kring et al. further linked anxiety to the anticipation of negative events, such as an impending death. Differentiating anxiety from fear, the American Psychiatric Association highlighted that while fear responds to tangible threats, anxiety stems from perceived or imagined threats. The American Psychological Association similarly described anxiety as an emotion marked by tension, worried thoughts, and physiological changes like elevated blood pressure. The Anxiety Centre emphasized its impairing effect on physical and psychological functioning, framing anxiety as a state of apprehension, uncertainty, and fear triggered by the anticipation of threatening events or situations. Beyond Blue, an Australian

organization, pointed out that persistent anxiety disrupts daily functioning by overwhelming individuals with constant worry. The analysis underscores the multifaceted nature of anxiety, emphasizing its conceptual distinctions and physiological impacts, as well as its significant relevance across clinical and everyday contexts.

Anxiety is prevalent among sexual and gender minority individuals and is often linked to minority stress and societal discrimination. Misedah-Robinson et al. (2024) found that transgender and gender-diverse individuals report higher anxiety compared to cisgender peers. Restar et al. (2024) emphasized that anti-trans policy environments exacerbate both anxiety and depressive symptoms. The Trevor Project and Psychological Association of the Philippines (2024) revealed high anxiety prevalence among LGBTQ+ youth in the Philippines, underscoring the global relevance of mental health disparities.

Depression

Cooper, Gin, Barnes, and Brownell (2020) conducted an exploratory study examining the interplay between depression and undergraduate research experiences. Depression is recognized as a leading mental health concern among undergraduates and disproportionately impacts individuals from underserved and underrepresented communities in the sciences. While prior research has explored the effects of research on graduate student depression, this study uniquely focuses on undergraduate students in the life sciences, aiming to understand how depression influences their research involvement and vice versa. The study involved interviews with 35 undergraduate researchers from 12 research-intensive public universities in the United States who identified as experiencing depression. Through a combination of inductive and deductive coding, the researchers identified keyways in which depression affected students' research experiences. Depression impacted students' motivation and productivity, creativity and risk-taking, engagement and concentration, and self-perception and socialization within research settings. Moreover, several aspects of the research environment influenced students' depressive symptoms, including social connections, experiences of failure in research, the availability of support, feedback received from mentors, and the overall research demands. Based on these findings, the authors proposed an initial set of evidence-based recommendations for research mentors to foster a more inclusive research environment. By addressing the unique challenges faced by students with depression, mentors can create supportive environments that enhance both the research experience and the well-being of undergraduates with mental health concerns. This study underscores the importance of inclusivity and mental health awareness in undergraduate research programs.

LeMoult and Gotlib (2019) explored depression through a cognitive lens, highlighting significant contributions of cognitive science to understanding its onset, persistence, and treatment. Their review underscores that depression and vulnerability to depression are often marked by pervasive negative biases and a reduced presence of positive biases in domains such as self-referential processing, interpretation, attention, and memory. Additionally, individuals with depression frequently employ maladaptive cognitive emotion regulation strategies. Central to their findings is evidence indicating deficits in cognitive control over mood-congruent material. Difficulties in inhibiting or disengaging from negative information in working memory contribute to increased reliance on maladaptive strategies like rumination while reducing the use of adaptive strategies such as cognitive reappraisal. These deficits also impair the flexible application of effective emotion regulation strategies and are linked to negative biases in both attention and long-term memory. Collectively, these factors amplify and sustain the negative mood states

characteristic of depressive episodes. The review synthesizes extensive evidence supporting this framework and discusses its theoretical and practical implications, particularly for improving therapeutic approaches. Furthermore, the authors propose avenues for future research, emphasizing the need to refine our understanding of cognitive processes in depression and develop targeted interventions that mitigate their detrimental impact. This cognitive perspective offers a comprehensive understanding of how biases and cognitive deficits sustain depression, providing valuable insights for advancing both theory and clinical practice.

Depression disproportionately affects sexual and gender minority populations due to minority stress, identity challenges, and social discrimination. Bailey et al. (2024) reported that sexual identity changes during young adulthood are associated with increased psychological distress in a UK longitudinal study. Chan et al. (2020) found elevated depressive symptoms among bisexual individuals in Hong Kong compared to heterosexual peers. Colizzi et al. (2023) reported global prevalence estimates of depression in sexual and gender diverse populations, emphasizing mental health disparities. Similarly, Fredriksen-Goldsen et al. (2021) highlighted systemic mental health inequities across LGBTQ+ populations, corroborated by Persson et al. (2022), who conducted a meta-analysis confirming that bisexual individuals experience higher depressive symptoms. Gender differences also contribute, with Richardson et al. (2024) showing social stressors exacerbate depression risks among women and sexual minorities.

Substance Use

LGBTQ+ Substance Use and Sexual Health and Wellbeing: A Special Commentary (2022) provides an account of how substance use may negatively impact the sexual health and wellness of LGBTQ+ communities. Given the high rates of LGBTQ+ individuals intertwining alcohol, drugs, and sex, efforts are needed to reduce substance use among this population.

Substance misuse is a prevalent issue within the LGBTQ+ community, encompassing a range of challenges from alcohol misuse and binge drinking to the use of substances such as methamphetamines, heroin, and opioids. Many individuals within this sexual minority face significant struggles with addiction (Kaliszewski, M., 2024). **Alcohol Use**

Alcohol use disparities remain a significant public health concern among sexual and gender minority populations. Fish et al. (2020) highlighted that sexual minority individuals engage in higher levels of alcohol use compared to heterosexual peers, with social stressors—such as stigma and discrimination—contributing to risk, while social support appeared protective. Focusing on sexual minority women, Hughes et al. (2021) reviewed evidence showing elevated alcohol consumption and related problems in this group, often linked to minority stress and intersecting gender-based pressures. Ross et al. (2022) extended this line of inquiry through a systematic review and meta-analysis, finding that bisexual individuals are at particular risk for heavy episodic drinking and hazardous alcohol use, reflecting both bisexual-specific stressors and lack of community belonging. Adding to these findings in a transgender context, Magalhães et al. (2024) reported alarming rates of moderate- to high-risk alcohol use among transgender women in Central Brazil, emphasizing the role of structural marginalization and limited access to culturally competent care. Collectively, these studies underscore that alcohol-related disparities are patterned not only by sexual orientation but also by gender identity, with minority stress, stigma, and structural inequities serving as central drivers.

Franjic (2021) reviewed an article about how alcohol addiction brings many health problems and found that alcohol addiction is a longstanding issue with deep cultural and historical significance, often being viewed with both positive and negative associations. Throughout history, alcohol has been celebrated in

religious and social contexts for its potential to foster community and therapeutic benefits. However, its misuse and overconsumption bring significant individual and societal challenges, leading to moral, social, and health-related issues such as poor physical health, mental disorders, and criminal behavior. Alcohol misuse is especially concerning as it is a global health challenge, with negative impacts across various social classes and both in developed and resource-poor countries. The physical and psychological consequences of alcohol dependence often coexist with mental health disorders, making it more difficult to diagnose and treat. Individuals struggling with alcohol dependence frequently present symptoms that can obscure or exacerbate mental health issues, which require clinicians to exercise careful evaluation and risk assessment. For healthcare providers, understanding the nature of excessive alcohol consumption is key to utilizing medical and mental health resources effectively and to providing the best possible care. Treatment must be approached with patience and care, particularly when patients present with multiple mental and physical health challenges. This highlights the importance of collaboration with mental health specialists, especially those working in liaison psychiatry, who are trained to address cases where psychological distress and physical issues intersect. Alcohol consumption in small quantities often promotes sociability, relieving feelings of fatigue and encouraging intimacy. However, as consumption increases, individuals may experience temporary euphoria and a sense of invincibility, which leads to continued drinking despite the negative consequences. Over time, tolerance builds, causing the individual to require more alcohol to achieve the same effects, while the euphoria becomes shorter-lived. This process traps individuals in a cycle of addiction, whereby the psychological desire for relief from reality results in growing social and personal consequences. Alcohol use not only damages the individual's well-being but also negatively affects those around them, reinforcing the need for comprehensive care and support for those with alcohol dependence.

Drug Use

Drug addiction poses significant long-term mental health risks for youth, who represent the future of any nation. The prolonged use of drugs places immense strain on both the physical and emotional well-being of individuals. The psychological impact of drug use can range from mild to severe, with conditions such as depression, anxiety, and paranoia being common. These effects not only harm the immediate mental health of young people but also increase their vulnerability to mental health disorders in the future. This research seeks to explore the psychological consequences of drug addiction on youth and the potential for rehabilitation to improve their long-term mental health prospects. It draws upon a variety of past studies and research to better understand how drug use affects the mental well-being of young individuals over time (Sannasi, 2024).

Drug abuse is a significant global issue, with the onset typically occurring during adolescence. A systematic review of 22 quantitative articles and one qualitative article aimed to identify the key risk and protective factors associated with drug abuse among adolescents. These factors were categorized into three main domains: individual, family, and community. Individual risk factors included traits such as high impulsivity, rebelliousness, poor emotional regulation, low religious involvement, and experiences of maltreatment or negative upbringing. Other contributing factors were psychiatric disorders like major depressive disorder, high drug accessibility, previous exposure to e-cigarettes, and behaviors like alexithymia and low perceived risk. Family-related risk factors comprised prenatal maternal smoking, low parental education, lack of supervision, and the presence of substance-using family members. At the community level, having peers who engage in drug abuse was identified as a significant risk. Conversely, the protective factors highlighted included individual traits like optimism, high mindfulness, and strong

beliefs against substance use. Other protective factors were social connections, paternal awareness of drug abuse, school engagement, involvement in structured activities, and strong religious beliefs. The review concluded that adolescent drug abuse results from the complex interplay of these various factors, indicating that effective prevention programs must address multiple levels, including individual, familial, and community-based interventions (Nawi et al., 2021).

Emerging evidence points to disproportionate patterns of drug use and drug-related harms among transgender and gender-diverse (TGD) individuals. In a meta-analysis, Cotaina et al. (2022) found consistently higher rates of substance use in transgender populations compared to cisgender peers, with elevated risks for both recreational and problematic drug use. Extending this to younger cohorts, Mammadli et al. (2025) examined TGNC youth under 25 in the United States and reported concerning levels of substance use, underscoring how early exposure intersects with minority stress and lack of affirming environments to increase vulnerability. More recently, Connolly et al. (2025) highlighted the impact of rising transphobia, showing that TGD individuals face disproportionate drug-related harm due to structural stigma, barriers to healthcare, and inadequate harm-reduction resources. Taken together, these findings demonstrate that substance use disparities in transgender and gender-diverse populations are driven by a complex interplay of psychosocial stressors, minority stress, and systemic inequities, necessitating both clinical and policy-level interventions.

Body Image

Body image concerns are increasingly recognized as a salient issue among sexual and gender minority populations. Santoniccolo et al. (2025) examined bisexual and pansexual women and found notable differences in body esteem and body satisfaction, with results indicating that sexual minority identity uniquely shapes body image experiences beyond those observed in heterosexual peers. Similarly, Bajada et al. (2025) explored intersections of sexual orientation and gender identity in relation to body image and reported that LGBTQ+ individuals often experience greater body dissatisfaction compared to cisgender heterosexual populations, a pattern linked to both internalized stigma and societal appearance norms. Complementing these findings, The Trevor Project (2023) released a national research brief highlighting that LGBTQ+ youth report disproportionately high levels of body dissatisfaction, with significant implications for self-esteem, disordered eating, and overall mental health. Collectively, these studies underscore that body image challenges among sexual and gender minorities are influenced not only by individual identity factors but also by broader sociocultural pressures, pointing to the importance of supportive interventions tailored to diverse LGBTQ+ experiences.

Another study on body image was conducted by Muzi et al., (2023) entitled Body Uneasiness and Dissatisfaction among Lesbian, Gay, Bisexual, and Heterosexual Persons. This study stated that Gay and bisexual men reported higher levels of body image disturbance and self-blaming attitudes compared to heterosexual men. Conversely, lesbian women experienced less body uneasiness than their bisexual and heterosexual peers but reported higher levels of self-hate. Additionally, lesbian and bisexual women expressed greater body dissatisfaction than gay men, while bisexual individuals reported more body uneasiness than other sexual minority subgroups. Higher body mass index (BMI) was identified as a significant predictor of body image concerns and dissatisfaction group.

Research consistently shows that body image plays a central role in the mental health of sexual minority women, including lesbians. Brewster, Cook, and deBlaere (2021) found that negative body image predicts higher depressive symptoms over time, whereas positive body image can act as a protective factor,

demonstrating both risk and resilience processes. Similarly, Jankowski, Fawkner, Slater, and Tiggemann (2021), in a systematic review and meta-analysis, confirmed that sexual minority women experience greater body dissatisfaction than their heterosexual peers, a disparity shaped by minority stress and sociocultural pressures. Longitudinal evidence from Mason, Lewis, and Heron (2020) further linked discrimination and stigma to disordered eating and poor body image, while also identifying social support and identity affirmation as protective mechanisms. Interventions that address minority stress show promise; for example, Pachankis, Hatzenbuehler, Rendina, Safren, and Parsons (2020) demonstrated through a randomized controlled trial that LGB-affirmative cognitive-behavioral therapy reduces depression, anxiety, and self-image concerns among gay and bisexual men, offering insights into potential applications for lesbian populations. Complementing these findings, Watson, Fish, and Baams (2022) highlighted that sexual minority youth face heightened risks of poor body image and psychological distress, but supportive networks and affirming environments foster resilience. Collectively, these studies underscore the complex interplay of risk and protective factors influencing body image and mental health among lesbians, pointing to the importance of both individual-level interventions and community-based support systems.

Body image dissatisfaction is shaped by a combination of cultural, social, and identity-related factors, with implications for lesbians and other sexual minority women. Al-Kandari et al. (2024) found that body image dissatisfaction among university students in Oman was strongly influenced by gender and sociocultural pressures, highlighting the role of broader social contexts in shaping self-perceptions. Building on this, Linardon et al. (2023), in a systematic review, emphasized that minority stress and identity-related stigma exacerbate risks of disordered eating and body dissatisfaction in sexual minority populations, while social support and identity affirmation can foster resilience. Beyond body image alone, disparities in health behaviors also emerge; Nagata et al.(2022) demonstrated through a meta-analysis that sexual minority youth and young adults engage in less physical activity than their heterosexual peers, often due to stigma and exclusion in non-affirming environments. Such lifestyle disparities may compound body image challenges and contribute to poorer mental health outcomes. Finally, Tiggemann et al. (2022) showed that body dissatisfaction persists throughout adulthood, though specific concerns vary with age, suggesting that for lesbians, body image issues are not confined to adolescence but remain salient across the life course. Collectively, these studies underscore the multidimensional nature of body image concerns among lesbians, linking them to cultural, behavioral, and identity-related factors that operate across different stages of life.

Lifestyle

According to the World Health Organization (2021), the concept of lifestyle is closely linked to health, especially in relation to factors like diet, physical activity, sleep, and substance use. Healthy lifestyle behaviors, such as consuming a balanced diet and engaging in regular physical exercise, have been shown to reduce the risk of chronic conditions such as heart disease, diabetes, and obesity. Conversely, unhealthy lifestyle choices—such as poor diet, sedentary behavior, smoking, or excessive alcohol consumption—can increase the risk of these conditions. Understanding the various dimensions of lifestyle is critical in assessing its influence on health, behavior, and social outcomes. Adopting a healthy lifestyle can contribute to improved physical and mental health, while an unhealthy lifestyle can lead to a variety of health problems. The interplay between socio-economic status, environmental influences, and personal choices makes lifestyle a complex and vital factor in promoting health and well-being across populations.

Lifestyle encompasses the behaviors, habits, and practices that individuals engage in on a daily basis. Among the most influential components of lifestyle are nutrition and physical activity, both of which have significant implications for overall health and well-being. Healthy lifestyle choices, including balanced nutrition and regular physical activity, can prevent a variety of diseases and improve mental health.

Lifestyle factors—including diet, physical activity, and substance use—interact with mental health outcomes across populations. Bueno-Notivol et al. (2021) and Fancourt, Steptoe, and Bu (2021) found that COVID-19 exacerbated depressive and anxiety symptoms globally. Kim, Han, and Park (2022) and Li et al. (2023) confirmed the bidirectional relationship between mental health and lifestyle behaviors. Among sexual minority women, Fredriksen-Goldsen et al. (2021) emphasized lifestyle disparities affecting chronic health conditions. Across sexual identities, WHO (2022) highlights the need for holistic, health-promoting interventions integrating mental health and lifestyle factors.

Nutrition

Nutrition is a fundamental aspect of health and well-being. By recognizing the unique nutritional needs and challenges faced by LGBT individuals and communities, one can work towards promoting better health outcomes and fostering inclusivity within our society. A study was conducted by Ferrero et al. (2023) entitled Nutrition and Health in the Lesbian, Gay, Bisexual, Transgender, Queer/Questioning Community: A Narrative Review. The researchers investigated evidence on mental health and social disparities within this group, focusing on vulnerabilities such as disordered eating, food insecurity, and discrimination by healthcare providers. Stigmatization and discrimination were found to correlate with poorer mental health and increased psychological distress, both of which are risk factors for eating disorders. Additional nutrition-related disparities include higher rates of food insecurity, body dissatisfaction, and weight issues, particularly among transgender individuals undergoing gender-affirming hormone therapy. The study highlights a lack of research on dietary concerns and nutrition care guidelines for LGBTQ+ populations, including studies that consider intersectionality and variations among different gender identities and sexual orientations. The researchers recommend that future LGBTQ+ health and nutrition research prioritize areas such as personalized and precision nutrition, social determinants of health, diet quality, body image, and the cultural competence and responsiveness of healthcare providers. Nourishing diversity is not just about feeding bodies; it is about feeding souls and creating a world where everyone can thrive. Sexual and gender minorities have a higher risk for health and nutrition-related disparities across the life course compared to the heterosexual or cisgender population. Experiences of stigmatization and discrimination are associated with diminished mental health quality and psychological distress, which are risk factors for developing various eating disorders. Other nutrition disparities include increased risk of food insecurity, body dissatisfaction, and weight complications, such as those experienced by the transgender population in association with gender-affirming hormone therapies.

Another study on nutrition lifestyle was conducted by Regan et al., (2021) entitled Exploring the Experiences of Gay Men with Regards to Eating, Exercise, and Mindfulness-Based Concepts. This research investigated gay men's eating behavior, which focused on stereotypes and body image, rather than understanding why disordered eating is prevalent in gay men. This study adopted a qualitative approach and employed interview methodology to explore gay men's attitudes, feelings, and experiences of their eating behavior, and the potential link to mindfulness and compassion. Twenty (20) gay men aged from 21 to 51 years were interviewed using open-ended questions. The first theme was developed following responses that participants' eating behavior and exercise engagement were influenced by their

perceived attractiveness by the gay community. All participants spoke of achieving or maintaining a slim or muscular body type and adopted their eating behavior or exercise regimen to reach corresponding goals. The second theme relates to the lack of acceptance felt by the gay community upon not conforming to the bodily expectations set out by the community. The third theme relates to the conflicts in participants' attitudes around how exercising and eating healthily would improve their mental well-being, but that they also would give preference to calorie-dense foods to reduce stress. These reflections are observed through a context of self-kindness and self-compassion and are seen to be related to increased feelings of self-criticism and body dissatisfaction.

Lavinia et al. (2021) conducted a study to assess the dietary habits, physical activity, and lifestyle of medical university students using a questionnaire divided into socio-demographic data, health behaviors, and nutrition-related consumption. The findings showed that students slept an average of 6.71 ± 1.52 hours per day, consumed 1.64 ± 0.88 liters of water daily, and engaged in 220 minutes of physical activity weekly. Key habits included lunch as the most important meal for both genders, with one-third having daily breakfasts and self-imposed dietary restrictions to control weight. The results highlighted that medical students possess knowledge about healthy lifestyles and apply it, which is crucial for their future professional roles.

Research has identified disparities in nutritional behaviors and dietary quality among sexual and gender minority populations. Prestemon et al. (2022) found significant differences in dietary quality by sexual orientation and sex among U.S. adults, with some sexual minority groups exhibiting poorer nutrition profiles compared to heterosexual counterparts. These disparities were linked to factors such as socioeconomic status, access to healthy food options, and minority stress. Expanding on this, Ferrero et al. (2023) reviewed evidence on nutrition and health in LGBTQ+ communities and highlighted persistent disparities, including higher prevalence of unhealthy eating patterns, nutritional deficiencies, and related health risks. Their review emphasized that these disparities are shaped not only by individual behaviors but also by structural barriers, such as discrimination in healthcare and lack of culturally tailored dietary interventions. Together, these studies underscore the importance of considering sexual orientation and gender identity in nutrition research and call for inclusive, equity-focused strategies to promote healthier dietary lifestyles in LGBTQ+ populations.

Physical Activity

Physical activity behaviors among transgender and gender-diverse (TGD) individuals are shaped by unique social and structural challenges. Schweizer et al. (2023) examined physical activity in TGD adults and found generally lower participation rates compared to cisgender peers, attributing these disparities to barriers such as stigma in fitness spaces, body dysphoria, and lack of inclusive facilities. Extending this to younger populations, Austin et al. (2024) conducted a scoping review on TGD children and youth, highlighting limited engagement in physical activity due to concerns about safety, discrimination, and inadequate access to affirming environments. Among heterosexual adults, physical activity is linked to reduced depressive symptoms and substance use risk (Kandola et al., 2020; Hu et al., 2020; Schuch et al., 2022). Their review emphasized that participation is not only influenced by personal motivation but also by environmental and social factors that either restrict or enable activity. Taken together, these studies underscore that improving physical activity levels in TGD populations requires structural changes—such as safe and inclusive spaces—as well as supportive interventions tailored to the lived experiences of transgender and gender-diverse individuals.

As the World Health Organization identified, human health is a complete physical, spiritual, and social well-being, not just the absence of disease and physical defects. A healthy lifestyle is a complex of different measures and consists of many aspects. The most famous components of this system are proper nutrition, hygiene, avoiding bad habits, physical activity, and adequate sleep. Based on the book "Physical Activity as a Component of a Healthy Lifestyle" by Sokolova (2017) et. al., stated that the new trend in the modern world is a healthy lifestyle. Gyms and health food stores are gaining popularity. The importance of a balanced diet and avoiding sugar, individuals who play on the street, ride bicycles, and play outdoor games like football, volleyball, basketball, etc., is visible nowadays. Maintaining and strengthening health is work, and this work is the best investment in the future.

A study was conducted by Peterson and Bopp (2023) entitled Reducing LGBTQ+ Physical Activity Disparities through Improved Measurement and Inclusion of Sexual Orientation in US National Data Sets. This study stated that engaging in adequate physical activity (PA) is proven to reduce negative health outcomes such as cardiovascular disease, stroke, type 2 diabetes, stress, anxiety, and depression. Despite these benefits, only 1 in 4 adults meet PA guidelines, with lesbian, gay, bisexual, transgender, and queer (LGBTQ+) individuals reporting higher rates of inactivity and associated negative health outcomes. Research on effective strategies to promote PA among LGBTQ+ adults is limited due to the lack of standardized methodologies for measuring both sexual orientation and PA in U.S. national data sets. This highlights the urgent need for standardized and inclusive approaches to data collection. A call to action is necessary to address the absence of uniform methods for capturing sexual orientation and PA data in national surveys. The ultimate goal is to enhance inclusivity and transparency, recognizing sexual orientation as a key factor influencing PA behavior at primary, secondary, and tertiary levels. The current gap in national data collection prevents accurate analysis of PA and health outcomes within diverse LGBTQ+ subgroups. Each LGBTQ+ identity experiences unique patterns of PA engagement and health outcomes, underscoring the need for precise and inclusive sexual orientation measures. Without addressing these gaps, health disparities among LGBTQ+ individuals are likely to persist, perpetuated by outdated data collection practices.

Another study was conducted by Greenspan (2019) entitled indicates that sexual and gender minority youth (e.g., lesbian, gay, bisexual, transgender, queer, and questioning; LGBTQ+) often avoid physical activity settings such as physical education classes, locker rooms, and sports fields due to feelings of discomfort and a lack of safety. These experiences may hinder LGBTQ+ youth from accessing the well-established physical, cognitive, and social-emotional benefits associated with physical activity and sports participation. A content analysis covering 20 years (1998–2018) was conducted to explore LGBTQ+ youth's engagement in physical activity and sports more comprehensively. The review identified a limited number of studies (n=13) and revealed that sexual minority youth generally participate in physical activity at lower rates than their peers. Transgender youth reported feeling significantly less safe in traditionally gender-segregated spaces such as locker rooms and bathrooms. This disparity was more pronounced among sexual minority males compared to sexual minority females.

Research Paradigm

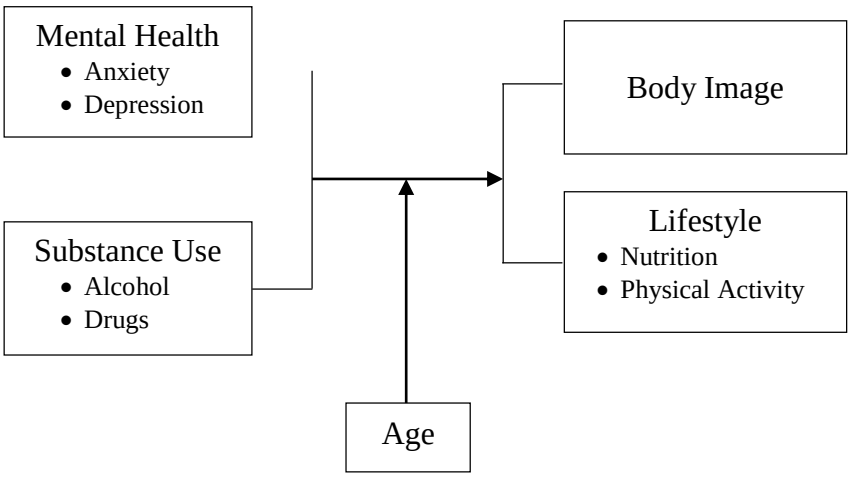
This research paradigm illustrates the interconnected relationships between mental health, substance use, gender, sexual identity, body image, and lifestyle behaviors, ultimately guiding the development of a lifestyle modification program. It begins by acknowledging mental health factors, such as anxiety and depression, and substance use issues, including alcohol and drug consumption, as critical influences on an individual's well-being. These factors are closely tied to gender (male or female) and sexual identity

(LGBT or straight), shaping how people experience and navigate personal health and lifestyle choices. For instance, individuals with marginalized sexual identities may face unique mental health stressors and coping mechanisms, such as substance use, that further affect their physical and emotional health. These dynamics directly impact body image and lifestyle practices, specifically nutrition and physical activity, which are essential components of overall well-being.

The paradigm suggests that understanding these interactions is crucial for designing an effective lifestyle modification program tailored to the specific needs of individuals based on their gender and sexual identity. By addressing mental health concerns, substance use, and body image struggles through targeted interventions, the program aims to promote healthier lifestyle behaviors, fostering improved physical and mental health outcomes for diverse communities. This framework highlights the importance of a holistic approach that considers the unique challenges and experiences of various identity groups, particularly within LGBT populations, to create more inclusive and effective health interventions.

Figure 1

The Relationship of Body Image and Lifestyle on Mental Health and Substance Use



Aligned with the Health Belief Model (HBM), Figure 1 explains health behaviors through key constructs such as perceived susceptibility, severity, benefits, barriers, cues to action, and self-efficacy. The paradigm illustrates how mental health issues (like anxiety and depression) and substance use (alcohol and drugs) can shape individuals' perceptions of their vulnerability to negative health outcomes.

The proposed lifestyle modification program acts as a cue to action, providing targeted support to help individuals make positive changes by improving their self-efficacy - the belief in their capacity to take control of their health. By addressing the complex interplay of mental health, substance use, identity, and lifestyle, this research framework reflects the HBM's emphasis on individual perceptions as drivers of health behavior change, paving the way for more inclusive and impactful interventions tailored to diverse communities, including LGBT populations.

Theoretical Framework

This study is anchored on the Health Belief Model (HBM) by social psychologists Irwin M. Rosenstock, Godfrey M. Hochbaum, S. Stephen Kegeles, and Howard Leventhal in the 1950s.

The HBM was created in the 1950s and is among the most used versions of health models for analyzing health-related habits (Glanz & Bishop, 2010). HBM is used to explain and predict changes in individual health behaviors. It proposes that people's assumptions about whether they are at risk for an illness or health problem, along with their illusions about the benefits of preventive measures, influence their ability to act (LaMorte, 2019).

Individual beliefs about health conditions, which predict individual health-related behaviors, are central to the Health Belief Model. The model describes the main factors influencing health behaviors as an individual's perceived susceptibility to illness or disease, belief of effect (perceived severity), possible positive benefits of action (perceived benefits), perceived obstacles to action, exposure to factors that cause action (cues to action), and trust in ability to succeed (self-efficacy) (LaMorte, 2019).

Individual perspectives are represented in this study by perceived threats, perceived benefits, and perceived barriers to action variables, which are thought to represent the probability of acting, which in this case is the influence of mental health and substance misuse. Individual perception, modifying factors, and the likelihood of action of LGBT individuals mediated by cultural beliefs will provide a reference for a better body image and lifestyle.

The Health Belief Model explores how individual beliefs about health and risk influence behavior. This includes perceptions of susceptibility to illness, perceived severity, and the costs/benefits of engaging in healthy or unhealthy behaviors. It can be applied to investigate how LGBT individuals perceive risks related to body image dissatisfaction, mental health, and substance misuse, as well as their motivation to adopt or avoid certain lifestyle behaviors.

Biblical Perspective

From a biblical standpoint, the stewardship of one's health is a spiritual responsibility. 1 Corinthians 6:19–20 teaches that the body is the temple of the Holy Spirit, emphasizing the importance of caring for physical well-being and refraining from harmful practices such as substance use. In relation to mental health, Scripture points to the renewal of the mind in Romans 12:2, encouraging believers to reject destructive patterns of thought and embrace transformation through God's truth. Regarding body image, the Bible affirms the inherent worth of every individual, declaring in Psalm 139:14 that we are "fearfully and wonderfully made," which highlights acceptance and gratitude toward one's physical self. Finally, in terms of lifestyle, 1 Timothy 4:8 acknowledges the value of physical training, underscoring the importance of balanced living through nutrition, physical activity, and healthy habits. Taken together, these principles reflect a holistic perspective where body, mind, and spirit are interconnected, aligning faith with the promotion of well-being across diverse identities.

Definition of Terms

For a clearer understanding of this study, the following terms are hereby defined using conceptual and/or operational definitions.

Anxiety. Defined as excessive worry, nervousness, or fear that interferes with daily activities and overall well-being. In this study, it is operationalized through the Generalized Anxiety Disorder-7 (GAD-7) scale, which measures the severity of anxiety symptoms among participants.

Alcohol. Refers to beverages containing ethanol that affect mood, cognition, and behavior when consumed. In this study, alcohol use is measured using the Alcohol Use Disorders Identification Test (AUDIT), which assesses frequency risk and patterns of consumption among respondents.

Body Image. The perception, thoughts, and feelings an individual has about their physical appearance, operationalized through body satisfaction and self-perception scales. It can be positive or negative and is influenced by personal experiences, social norms, and cultural standards.

Depression. Refers to mental health condition characterized by persistent sadness, loss of interest or pleasure, and impaired daily functioning. In this study, it is measured using the Beck Depression Inventory-II (BDI-II), which evaluates the severity of depressive symptoms among respondents.

Drugs. Drugs are psychoactive substances other than alcohol that nmay alter mood, perception, cognition, and behavior. In this study, drug use is measured using the Drug Use Disorders Identification Test (DUDIT), which evaluates frequency and problematic patterns of drug consumption.

Influence. Influence refers to the capacity of one factor to produce an effect or bring about a change in another factor, particularly in behavior, attitudes, or perceptions (American Psychological Association, 2020). In this study, it is operationalized as the measurable association or impact of mental health and substance use on body image and lifestyle, analyzed through the statistical relationship between variables.

Lifestyle. A person's patterns of behavior, habits, and daily activities in relation to nutrition and physical activity measured through a researcher-constructed questionnaire developed in reference to World Health Organization (WHO) guidelines.

Mental Health. It refers to the emotional, psychological, and social well-being of an individual, measured in this study using a standardized scale of the Beck-Depression Inventory and GAD-7 Anxiety Severity by assessing the level of depression and anxiety.

Nutrition. It refers to the process of providing or obtaining the food necessary for health, growth, and bodily functions. In this study, it is operationalized as the respondents' dietary patterns, food choices, and eating habits, measured through a researcher-constructed questionnaire developed in reference to World Health Organization (WHO) guidelines.

Physical Activity. Defined as any bodily movement produced by skeletal muscles that requires energy expenditure, including exercise, sports, and daily activities. In this study, it is assessed through a researcher-constructed questionnaire, designed in accordance with WHO guidelines, focusing on the frequency, duration, and intensity of respondents' participation in physical activity.

Sexual Identities. It refers to how individuals perceive and label their sexual orientation, such as lesbian, gay, bisexual, and transgender, straight male and straight female. This study acknowledges the diversity of sexual identities and examines their relation to mental health and substance use based on the respondents' identification.

Substance Use. It is defined as the consumption of alcohol and drugs, assessed by the frequency (all the time, often, sometimes, rarely, and never) as reported by the respondents using the Alcohol Disorders Identification Test (AUDIT) screening tool and Drug Use Disorders Identification Test (DUDIT).

3
Methodology

This chapter is designed to determine the mental health status, influence, and significance of body image, lifestyle, and mental health. Describes the methods and steps used in the study's investigation. It presents the research design, population, and sampling technique, participant description, research instrument, pilot study, data collection methods, ethical considerations, and statistical care used in data analysis.

Research Design

In this study, the researcher employed a descriptive correlational design, which is a type of analysis in which information is gathered without modifying the study subject (Sousa et al., 2007). It would be an appropriate approach to examine the natural relationships between variables without altering the study participants or their behavior. This design allows researchers to explore statistical relationships between body image, lifestyle factors (such as diet, physical activity, and substance use), mental health outcomes (such as depression and anxiety), and substance use within the LGBT population. It also facilitates the collection of descriptive data on body image perceptions, lifestyle habits, and mental health indicators to identify patterns and trends unique to this community. By avoiding interventions or experimental manipulation, the research ensures that the relationships studied reflect real-world conditions and experiences. Through a quantitative descriptive correlational method, the study can provide a comprehensive overview of how body image and lifestyle factors influence mental health and substance misuse, while identifying key correlations that inform targeted interventions and support strategies.

Population and Sampling Techniques

As a resident of Mabini, Batangas, one of the municipalities in the 2nd District, the researcher chose this locale to conduct the study. This decision is driven by a personal commitment to support the LGBT communities within the district, promoting awareness of their physical and mental health and overall lifestyle. The researcher believes in starting with small, meaningful initiatives to serve her community, striving to make a positive impact on the lives of those in her local area.

This study focused on LGBT individuals, specifically gay, lesbian, bisexual, transgender individuals, straight males, and females, who are residents and registered members of LGBT organizations in the 2nd District of Batangas. Located in the CALABARZON region of the Philippines, which includes the provinces of Cavite, Laguna, Batangas, Rizal, and Quezon, is one of the key provinces in the region. The 2nd District, which is represented in the Philippine Congress, includes the municipalities of Bauan, Lobo, Mabini, San Pascual, San Luis, and Tingloy (batangas.gov.ph).

Table 1

Population of Registered LGBT and Random Heterosexual Residents in the Second District of Batangas

Municipality	Lesbian	Gay	Bisexual	Transgender	Straight Male	Straight Female	Total
Bauan	11	139	0	0	30	30	210
Lobo	10	40	10	15	30	30	135
Mabini	25	83	3	2	30	30	173
San Pascual	51	84	37	9	30	30	241
San Luis	27	79	4	1	30	30	171
Total							**930**

The total population of registered LGBT individuals in the Second District of Batangas is 630, as per the record in the Provincial Social Welfare and Development Office of the Government of Batangas. The breakdown of the population is shown in Table 1.

Table 2 shows the figures resulting from the purposive sampling technique to select respondents from both LGBT and heterosexual groups in the Second District of Batangas. The official population of LGBT individuals in the district (N = 930) was obtained from the Provincial Social Welfare and Development Office, which served as the reference sampling frame. However, while gathering respondents, the

researcher found that not all registered members currently reside in their respective municipalities. Some were working in the uplands or in nearby cities, while others were no longer active participants in the organizations, as the last membership update was recorded in 2022.

Table 2

Registered LGBT and Random Heterosexual Individuals in the Second District of Batangas

Municipality	Lesbian	Gay	Bisexual	Transgender	Straight Male	Straight Female	Total
Bauan	9	69	0	0	33	32	143
Lobo	8	30	7	8	30	30	113
Mabini	17	44	3	2	30	35	131
San Pascual	32	46	32	9	30	34	183
San Luis	22	34	4	1	30	31	122
Total							**692**

The study aimed to compare mental health, substance use, body image, and lifestyle across sexual identities. The final respondents (N = 692) were chosen based on availability and willingness to participate, making the approach purposive-convenience sampling. Furthermore, to ensure sufficient representation of heterosexual individuals as a comparison group, the study incorporated elements of quota sampling by balancing the number of heterosexual male (n = 153) and female (n = 162) respondents with those from LGBT groups. This ensured that both LGBT and heterosexual identities were adequately represented for statistical analysis, even if exact proportional representation from the provincial registry could not be achieved.

Instrumentation

In order to achieve the objectives of the research, the study gathered primary data using a standardized questionnaire to ensure the reliability and validity of measurement. Alcohol consumption was assessed using the Alcohol Use Disorders Identification Test (AUDIT), while drug use was measured through the Drug Use Disorders Identification Test (DUDIT). To evaluate anxiety levels, the Generalized Anxiety Disorder-7 (GAD-7) scale was employed, and depressive symptoms were determined using the Beck Depression Inventory-II (BDI-II). In addition, body image perception was assessed through the Body Appreciation Scale-1 (BAS-1). These instruments are internationally recognized, psychometrically validated, and widely utilized in both clinical and research settings, making them appropriate tools for the present study.

To ensure the ethical use of standardized instruments, the researcher formally sought permission by directly contacting the respective authors of the tools utilized in the study. In response, Dr. Thomas Babor confirmed that the Alcohol Use Disorders Identification Test (AUDIT) and the Drug Use Disorders Identification Test (DUDIT) did not require explicit permission for use, as stated in their manuals, since these instruments are freely available for noncommercial research purposes, provided that proper acknowledgment and citation are observed (Babor et al., 2001; Hildebrand, 2015). Further verification showed that the remaining standardized instruments—the Generalized Anxiety Disorder-7 (GAD-7), the Beck Depression Inventory-II (BDI-II), and the Body Appreciation Scale-1 (BAS-1)—are likewise open for use in noncommercial academic research, with the same condition of appropriate citation (Spitzer et al., 2006; Beck et al., 1996; Avalos et al., 2005). This confirmation validated the inclusion of the AUDIT,

DUDIT, GAD-7, BDI-II, and BAS-1 in the present study, ensuring that the administration of these measures adhered to ethical and scholarly standards.

Table 3 presents the scoring and interpretation scale used to measure body image. Responses were rated on a 5-point Likert scale ranging from 1 (Never) to 5 (All the time).

Table 3

Scoring and Interpretation for Body Image

Likert Scale	Degree of Intensity	Mean Interval	Verbal Interpretation
1	Never	1.00-1.50	Very poor
2	Rarely	1.51-2.50	Poor
3	Sometimes	2.51-3.50	Fair
4	Often	3.51-4.50	Good
5	All the time	4.51-5.00	Very good

A computed mean score between 1.00–1.50 indicates a very poor body image, while 1.51–2.50 reflects a poor body image. Scores within 2.51–3.50 suggest a fair or moderate level of body image appreciation. Meanwhile, 3.51–4.50 corresponds to a good body image, and 4.51–5.00 represents a very good body image, indicating strong satisfaction and appreciation of one's body.

The scoring scale in Table 4 is at the end of the questionnaire. Upon completion of the questionnaire, the score for each of the twenty-one questions will be added up by counting the number to the right of each question that is marked. The highest possible total for the whole test would be sixty-three, which would mean the individual circled number three on all twenty-one questions. Since the lowest possible score for each question is zero, the lowest possible score for the test would be zero, indicating that the individual circled zero on each question.

Table 4

Scoring and Interpretation for Depression

Score	Levels of Depression	Total Score
0	These ups and downs are considered normal	1-10
1	Mild mood disturbance	11-16
2	Moderate clinical depression	17-20
3	Severe depression	21- 40
4	Extreme depression	Over 40

Table 5

Scoring and Interpretation for Anxiety

Scale	Frequency	Total Score	Interpretation
0	Not at all	0-4	Minimal anxiety
1	Several days	5-9	Mild anxiety
2	More than half day	10-14	Moderate anxiety
3	Nearly everyday	15-21	Severe anxiety

Table 5 presents the scoring anxiety severity; scores of 0, 2, and 3 will be assigned to response categories, respectively, of "not at all," "several days," "more than half days," and "nearly every day." The GAD-7 total score for the seven items ranges from 0-21, which will be interpreted above:
Table 6 presents the scoring of the alcohol use disorder identification test; each question is scored from 0 to 4, with higher scores indicating greater severity of drug use or related problems. The total score is the sum of all answers, and the interpretation of the score will be as follows:

Table 6

Scoring and Interpretation for Alcohol Use

Score	Frequency	Interval	Verbal Interpretation
0	Never	0-7	Low risk of alcohol use problem
1	Monthly or less	8-15	Risky drinking
2	2-4 times a month	16-9	Hazardous drinking
3	2-3 times a week	20 or higher	Possible alcohol dependence
4	4 or more times a week		

In Table 7, the scoring of the drug use disorder identification test was presented; each question is scored from 0-3, with higher scores indicating greater severity of drug use or related problems. The total score is the sum of all answers, and the interpretation of the score will be as follows:

Table 7

Scoring and Interpretation for Drug Use

Score	Frequency	Interval	Verbal Interpretation
0	Never	0-5	Low risk of drug use problem
1	Once or twice	6-19	Risky or harmful drug use
2	Monthly or less	20-39	Likely drug risk disorder
3	Weekly or less	45 and above	High likelihood of drug use disorder

In addition to standardized instruments, a researcher-made questionnaire was developed to assess lifestyle factors, especially in terms of physical activity and nutrition. The items were formulated based on guidelines and recommendations from reputable health organizations such as the World Health Organization (WHO) to ensure alignment with global standards for healthy living. This section of the tool was designed to capture the respondent's frequency, intensity, and duration of physical activity, as well as their dietary practices in relation to balanced nutrition. To establish its suitability, the questionnaire underwent content validation by seven experts in health and behavioral sciences before administration, all from the Adventist University of the Philippines, mostly in the field of health education. This was done to ensure that responses are not too varied across specialties (Hair et al., 2019). After validation, a pilot study was conducted to ensure the reliability of the research instrument, based on Cronbach's alpha.

The current study has developed a scale to measure lifestyle. There were two dimensions: nutrition (12 items) and physical activity (10 items). All the items were measured using a 5-point Likert-type scale (1 = Never to 5 = All the time). The scoring and verbal interpretation are indicated below:

Table 8

Scoring and Interpretation for Physical Activity and Nutrition

Likert Scale	Degree of Intensity	Mean Interval	Verbal Interpretation
1	Never	1.00-1.50	Very poor
2	Rarely	1.51-2.50	Poor
3	Sometimes	2.51-3.50	Fair
4	Often	3.51-4.50	Good
5	All the time	4.51-5.00	Very good

Pilot Study

The researcher conducted the pilot study in one municipality with thirty random individuals. The characteristics of these selected respondents were assumed to accurately represent the target population and were not included in the final data gathering.

The participants in the pilot study were not included in the final study. For the pilot study, the researcher administered the questionnaire by employing printed questionnaires, allowing the respondents to respond at their convenience. As a result, thirty questionnaires were filled out and submitted. After the data were retrieved, they were submitted to the statistician for analysis and determination of the reliability of the instrument.

Table 9 presents the reliability test results. It could be seen from Table 8 that the Cronbach's alpha coefficient for all the variables was good and acceptable. None of the items were excluded since the item correlation of each item is -.362 and above, which is the basis of item deletion.

Table 9

Reliability Test Results

Variable	Number of Items	Cronbach's Alpha
Mental Health	21	.871
Anxiety	7	.768
Mental Health (frequency)	21	.752
Substance Use: Alcohol	10	.908
Substance Use: Drugs	11	.888
Body Image	10	.929
Nutrition	12	.776
Physical Activity	10	.864

Criteria for Evaluation and Interpretation

The questionnaire used a five-point Likert scale for all items in lifestyle in terms of nutrition and physical activity, scored by 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, and 5 = All the Time. The scoring and verbal interpretation are indicated below:

Table 10
Scoring and Interpretation for Physical Activity and Nutrition

Likert Scale	Degree of Intensity	Mean Interval	Verbal Interpretation
1	Never	1.00-1.50	Very poor
2	Rarely	1.51-2.50	Poor
3	Sometimes	2.51-3.50	Fair
4	Often	3.51-4.50	Good
5	All the time	4.51-5.00	Very good

Source: Author's Construct

Data Gathering Procedure

This section presents the data gathering procedures. After the validity and reliability of the instrument were established, the actual data were collected following a systematic procedure. The researcher first and foremost waited for the ethical clearance from the Ethical Review Board (ERB) before conducting the study. The researcher solicited help and contacted the presidents of LGBT organizations in each municipality. The presidents were contacted through Messenger. The respondents and presidents made schedules to gather LGBT members, and printed copies of the questionnaire were used to collect data. The purpose of the research was explained to them, and they were taken through the items in the questionnaire. The data collection process lasted for 4 weeks. The researcher encoded and tallied the responses into Excel format. After coding and tallying, the statistical treatment was applied for the various analyses to generate the needed results for interpretation.

Analysis of Data

The data gathered was first coded into Excel and then transferred to and processed using Statistical Package for Social Sciences (SPSS v. 21). After coding, the outliers were identified and removed, and then the remaining responses were analyzed to generate the needed results for interpretation. Research questions one to four were analyzed using descriptive statistics, particularly minimum, maximum, mean, and standard deviation. Research question five employed Pearson Correlational statistics. Questions six and seven were addressed using regression (ANOVA). Question eight was answered using Kruskal-Wallis to explain the difference in body image and lifestyle of individuals from different sexual identity groups, considering their age.

Ethical Considerations

The study involved human subjects or respondents; thus, some ethical issues were considered to avoid and minimize misinformation while conducting the research. Thus, confidentiality and anonymity of respondents were of paramount importance to the researcher. First of all, on the instrument, the respondents were informed about the purpose of the exercise and were assured of confidentiality. Informed consent form is presented on the first page of the questionnaire, clearly explaining the study's purpose, procedures, potential risks, and the participant's rights. Most importantly, they were informed that participation was voluntary and that all the information gathered was for educational purposes and such, their personal details did not need to be provided on the instrument. Given the sensitive nature of the topics body image, mental health, substance use, and LGBT identity, data collected took place in private, safe locations to protect respondents from potential stigma or identification. Respondents were informed of their right to withdraw at any time without penalty.

To further protect privacy, interviews and surveys sessions will be scheduled discreetly, and no personal identifiers will be linked to responses. Data will not be disclosed unless required by law or with the participant's explicit consent.

Permission was also sought and obtained from the Ethical Review Board (ERB) of Adventist University of the Philippines (AUP), which ensured that ethical considerations were adhered to. Lastly, all materials or works of others were appropriately referenced while adhering to APA 7th edition.

4
Results and Discussion

This chapter presents the results from the data collected from the field in answering and testing the hypothesis that guided the master's thesis in relation to the literature. The results of the analyzed data were mostly presented in tables, accompanied by interpretations and some inferences. The results of the data analysis are quantitative in nature, and they are presented in relation to research questions and hypotheses.

Mental Health Status of Individuals from Different Sexual Identity Groups

Descriptive statistics such as minimum, maximum, mean, and standard deviation were computed and presented in tables to analyze the results of mental health status based on two dimensions: depression and anxiety.

Depression

Table 11 presents the results of the assessment of respondents regarding mental health. Depression was measured using sixty-three items. Among the different sexual identities, bisexuals have the highest mean score (M=30.739; SD=10.065). This is closely followed by straight females (M=30.364; SD=11.223). Both groups fall at the upper end of the moderate depression range, suggesting a heightened vulnerability to depressive symptoms compared to other identities. This finding aligns with recent studies showing that bisexual individuals often report higher levels of depression compared to gay/lesbian peers (Chan et al., 2020; Persson et al., 2022). Similarly, straight females remain more susceptible to depression, which may be compounded by gender-based stressors (Richardson et al., 2024).

On the other hand, lesbians (M=27.489, SD=8.816), transgender (M=27.100, SD=14.164) showed slightly lower mean scores but remained within the same interpretive range. Nonetheless, global data indicate that transgender individuals, especially transfeminine persons, experience disproportionately high levels of depression and anxiety (Colizzi at al., 2023).

Table 11

Mental Health Status in Terms of Depression of Individuals from Different Sexual Identity Groups

	N	Minimum	Maximum	Mean	Std. Deviation	Interpretation
Lesbian	88	11.00	51.00	27.489	8.816	Moderate Depression
Gay	223	.00	63.00	28.942	12.626	Moderate Depression
Bisexual	46	2.00	51.00	30.739	10.065	Moderate Depression
Transgender	20	.00	48.00	27.100	14.164	Moderate Depression

Straight Male	153	.00	63.00	28.817	11.185	Moderate Depression
Straight Female	**162**	**4.00**	**63.00**	**30.364**	**11.223**	**Moderate Depression**

Legend: 1-10 Ups and Downs are Normal; 11-16 Mild Mood Disturbance; 17-20 Borderline Clinical Depression; 21-30 Moderate Depression; 31-40 Severe Depression; over 40 Extreme Depression

The standard deviation values indicate notable variability within each group, with transgender (SD=14.164), and gay respondents (SD=12.626) exhibiting the widest range of depression scores. This suggests that while some individuals in these groups may only experience mild or borderline symptoms, others experience a severe level of depression.

Overall findings highlight that all sexual identity groups fall under the category of moderate depression, underscoring the prevalence of depressive symptoms across diverse populations. The relatively higher mean scores among bisexual and straight female respondents point to a possible greater susceptibility, which may be attributed to compounded stressors such as identity-related stigma, gender-based challenges, or societal expectations. This is supported by longitudinal studies showing that individuals who identify as bisexual, or those experiencing shifts in sexual identity, face consistently higher odds of depression and psychological distress (Bailey et al.,2024; Fredriksen-Goldsen et al., 2021).

Anxiety

This dimension was measured with a set of seven items. It can be gleaned in the Table below the status of anxiety of the respondents across different sexual identities. The mean value of 5-9 indicates mild anxiety while mean values 10-14 indicate moderate anxiety.

Among the groups, straight females (M = 9.586, SD = 4.808) have the highest mean score, placing them at the upper end of the mild anxiety range and very close to the threshold of moderate anxiety. Similarly, bisexuals (M = 8.652, SD = 4.706), lesbians (M = 8.205, SD 5.314), and gays (M = 7.686, SD 4.723) also have mild anxiety levels, with comparable mean values. Straight males (M = 7.458, SD = 5.028) recorded the lowest average anxiety score but remained within the mild anxiety category.

The only group in Table 12 with an interpretation of moderate anxiety was transgender (M= 10.500, SD = 6.613). Although this group had the smallest same size (N = 20), their mean score exceeded the mild range, highlighting greater vulnerability to anxiety compared to other groups.

Table 12

Mental Health Status in terms of Anxiety of Individuals from Different Sexual Identity Groups

	N	Minimum	Maximum	Mean	Std. Deviation	Interpretation
Lesbian	88	.00	21.00	8.205	5.314	Mild Anxiety
Gay	223	.00	20.00	7.686	4.723	Mild Anxiety
Bisexual	46	.00	19.00	8.652	4.706	Mild Anxiety
Transgender	20	.00	21.00	10.500	6.613	Moderate Anxiety

Straight Male	153	.00	21.00	7.458	5.028	Mild Anxiety
Straight Female	**162**	**.00**	**21.00**	**9.586**	**4.808**	**Mild Anxiety**

Legend: 0-4 minimal anxiety; 5-9 mild anxiety; 10-14 moderate anxiety; 15-21 severe anxiety

Overall, the results emphasize that while mild anxiety is common across most groups, transgender individuals may be at greater risk. These findings align with recent research demonstrating that transgender and gender-diverse persons report significantly higher levels of anxiety than their cisgender peers (Misedah-Robinson et al., 2024; Restar et al., 2024). For instance, a study on transgender and gender-diverse individuals found higher proportions of anxiety symptoms compared to cisgender counterparts, especially under conditions of social stress and minority discrimination. In the Philippine context, the 2024 Philippines National Survey on the Mental Health of LGBTQ+ Young People reports that anxiety symptoms are widespread, with significant differences by gender identity, showing increased anxiety among those identifying as transgender or gender questioning (The Trevor Project & Psychological Association of the Philippines, 2024).

These findings highlight the importance of targeted interventions that address this concern. Policies and programs should therefore adopt an inclusive and intersectional approach to mental health support.

Extent of Alcohol Use of Individuals from Different Sexual Identity Group

Table 13 presents the extent of alcohol use among individuals from different identity groups. The interpretive scale identifies 0-7 as low risk of alcohol use problem, 8-15 as risky drinking, 16-19 as hazardous drinking, and 20 and above as possible alcohol dependence.

Table 13

Extent of Alcohol Use of Individuals from Different Sexual Identity Group

	N	Minimum	Maximum	Mean	Std. Deviation	Interpretation
Lesbian	88	.00	30.00	4.807	6.729	Low risk
Gay	223	.00	32.00	5.287	7.467	Low risk
Bisexual	46	.00	24.00	6.152	6.752	Low risk
Transgender	20	.00	25.00	8.050	8.642	Low risk
Straight Male	153	.00	30.00	4.686	6.609	Low risk
Straight Female	**162**	**.00**	**27.00**	**2.932**	**4.912**	**Low risk**

Results show that most groups reported mean scores falling within the low risk category. Among these groups, the bisexuals have the highest mean value (M = 6.152, SD = 6.753). However, the only group to exceed the low-risk threshold was transgender (M = 8.050, SD = 8.642), who were interpreted into the risky drinking category. This indicates that, on average, transgender individuals consume alcohol at all levels that may begin to have harmful consequences. This is consistent with recent findings showing that transgender women exhibit alarming rates of moderate to high-risk alcohol use, with more than half reporting binge drinking and risky consumption (Magalhaes et al., 2024).

Overall, the results emphasize that while alcohol use does not appear to be a severe concern for most groups, transgender individuals and, to a lesser extent, bisexual and gay individuals may be at higher

risk for problematic alcohol consumption. These findings are supported by meta-analytic reviews showing that bisexual individuals report greater prevalence of alcohol use and heavy episodic drinking compared with lesbian, gay, and heterosexual peers (Ross et al., 2022). Additionally, sexual and gender minority populations continue to face minority stress and social stigma, which are linked to higher rates of substance use, including alcohol (Fish et al., 2020; Hughes et al., 2021)

These findings highlight the need for culturally sensitive prevention and intervention strategies that acknowledge the role of minority stress, gender roles, and social norms in shaping alcohol use behaviors.

Extent of Drug Use of Individuals from Different Sexual Identity Groups

Table 14 shows the extent of drug use among individuals from different sexual identity groups. Based on the interpretive scale, scores from 0-5 indicate low risk of drug use problem, 6-19 indicate risky or harmful drug use, 20-39 indicate likely drug use disorder, and 40 and above suggest high likelihood of drug use disorder.

Table 14

Extent of Drug Use of Individuals from Different Sexual Identity Groups

	N	Minimum	Maximum	Mean	Std. Deviation	Interpretation
Lesbian	88	.00	18.00	.591	2.342	Low risk of drug use
Gay	223	.00	18.00	.919	3.307	Low risk of drug use
Bisexual	46	.00	4.00	.087	.590	Low risk of drug use
Transgender	20	.00	11.00	1.050	3.086	Low risk of drug use
Straight Male	153	.00	16.00	.431	2.016	Low risk of drug use
Straight Female	162	.00	9.00	.117	0.800	Low risk of drug use

Legend: 0-5 Low Risk of Drug Use Problem; 6-19 Risky or Harmful Drug Use; 20-39 Likely Drug Risk Disorder; 40 and above High Likelihood of Drug Use Disorder

The results show that all groups, regardless of sexual identity, showed mean values within the low-risk range, that is, from 0.12 to 1.05. Although all groups gathered the same interpretation, which is low risk of drug use, the group that had the highest mean value is the transgender individuals (M = 1.050, SD = 3.086) while bisexual individuals (M = .087, SD = .590) had the lowest score.

Although some respondents across groups reported maximum values as high as 18, which falls within the "risky or harmful drug use" range, there were outliers. Overall, the interpretation across all groups remained within low-risk classification.

These findings are consistent with recent literature indicating that sexual and gender minorities tend to have higher prevalence of drug use and substance use disorder risk compared with heterosexual/cisgender populations, but the average in many studies still remains low for mild/harmful levels, with only a subset reaching higher risk thresholds (Cotaina et al., 2022; Mammadli et al., 2025; Connolly et al., 2025). For instance, a meta-analysis of substance use among transgender people found not all individuals meet criteria for disorder. Another recent study showed that while many sexual minorities youth report some use of substances, drug use disorders remain much less common, especially in populations with protective factors (Mammadli et al., 2025).

Body Image of Individuals from Different Sexual Identity Groups

Table 15 presents the body image scores of individuals from different sexual identity groups. Based on the interpretive scale, scores from 2.51-3.50 indicate fair body image, while scores from 3.51-4.50 indicate a good body image.

The results show that gay individuals (M = 3.508, SD = 1.030), bisexual individuals (M = 3.689, SD = .954), transgender individuals (M = 3.595, SD = 1.139), straight females (M = 3.636, SD = .978) have good body image. Among these groups, bisexual individuals had the highest mean score, which indicates relatively more positive body image perceptions.

Table 15

Body Image of Individuals from Different Sexual Identity Groups

	N	Minimum	Maximum	Mean	Std. Deviation	Interpretation
Lesbian	88	1.00	5.00	3.483	.959	Fair
Gay	223	.00	5.00	3.508	1.030	Good
Bisexual	46	1.40	5.00	3.689	.954	Good
Transgender	20	1.40	5.00	3.595	1.139	Good
Straight Male	153	1.00	5.00	3.488	1.140	Fair
Straight Female	162	1.00	5.00	3.636	.978	Good

Legend: 1.00-1.50 very Poor; 1.51-2.50 Poor; 2.51-3.50 Fair; 3.51-4.50 Good; 4.51-5.00 Very Good

On the other hand, lesbians (M = 3.483, SD = .959) and straight males (M = 3.488, SD = 1.140) have fair body image. While their scores were only slightly below the threshold for “good”, they will suggest more mixed or ambivalent perceptions of body image compared to other groups.

Overall, the results underscore that body image is shaped not only by gender but also by sexual identity and the social pressures associated with each group. These findings are consistent with recent research showing that sexual minority individuals (especially bisexual and transgender individuals) report more body image concerns or lower body satisfaction than heterosexual and cisgender peers, even if many report generally positive and moderate body image levels (Santoniccolo et al., 2025; Bajada et al., 2025). For example, one study found that bisexual and pansexual women had significantly lower body esteem and body satisfaction compared to heterosexual women, while gay men showed mixed results depending on muscularity and thin-ideal preasures. Another recent study reported that among LGBTQ+ youth, body dissatisfaction rates are very high across sexual orientations, but transgender and nonbinary youth have the highest rates of distress linked to body image (The Trevor Project, 2023).

These findings highlight the importance of intersectional approaches in addressing body image concerns, ensuring that interventions account for the unique experiences of different sexual identities while also recognizing broader societal standards of beauty and masculinity.

Lifestyle of Individuals from Different Sexual Identity Groups

Table 16 shows the nutrition-related lifestyle scores of individuals across different sexual identity groups. Based on the interpretive scale, 2.51-3.50 indicates a fair lifestyle, while 3.51-4.50 indicates a good lifestyle.

Table 16

Nutritional Lifestyle of Individuals from Different Sexual Identity Group

	N	Minimum	Maximum	Mean	Std. Deviation	Interpretation
Lesbian	88	1.00	5.00	3.321	.741	Fair
Gay	223	1.00	5.00	3.436	.608	Fair
Bisexual	46	2.50	4.83	3.527	.502	Good
Transgender	20	1.83	4.25	3.400	.709	Fair
Straight Male	153	1.00	5.00	3.346	.710	Fair
Straight Female	162	1.00	4.50	3.290	.573	Fair

Legend: 1.00-1.50 very Poor; 1.51-2.50 Poor; 2.51-3.50 Fair; 3.51-4.50 Good; 4.51-5.00 Very Good

The results indicate that bisexuals (M = 3.527, SD = .502) were the only group who had a good nutritional lifestyle. In contrast, all other groups, including lesbians, gays, transgender individuals, straight males, and straight females, have a fair lifestyle. This suggests that while most groups fall in the mid-range, bisexual respondents appear to practice healthier nutrition-related habits, which may not be optimal across the sample as a whole. These findings align with recent literature showing that bisexual individuals often report somewhat better or more varied dietary quality or supplement use in some studies, although overall nutrition disparities remain in sexual and gender minority populations (Prestemon et al., 2022; Ferrero et al., 2023). For example, "Differences in Dietary Quality by Sexual Orientation and Sex among US Adults" found that while some sexual minority groups had lower diet quality, bisexual men and women in certain age/race strata showed smaller disparities than expected. Additionally, "Nutrition and Health in Lesbian, Gay, Bisexual, Transgender, Queer/Questioning Community" highlights how bisexual people are underrepresented but often report nutrition-related behaviors differently, such as higher use of dietary supplements or more frequent attention to diet compared to other subgroups.

Lifestyle on Physical Activity of Individuals from Different Sexual Identity Groups

Table 17 presents the physical activity scores of individuals across different sexual identity groups. Based on the interpretive scale, 2.51-3.50 indicates a fair lifestyle, while 3.51-4.50 indicates a good lifestyle. The table shows that all groups have a fair level of physical activity. Mean scores ranged from 2.65 (straight female) to 3.09 (bisexual), indicating moderate engagement in physical activity but not reaching the "good" level. Specifically, bisexuals (M – 3.087, SD – .804) had the highest average score, while straight females (M = 2.646, SD = .642) had the lowest. Gay (M = 2.869, SD = .659), straight male (M = 2.915, SD = .770), transgender individuals (M = 3.001, SD = .602), and lesbian (M = 2.789, SD = .610) respondents all fell in between, with slight differences but within the same "fair" range.

Table 17

Physical Activity of Individuals from Different Sexual Identity Group

Physical Activity	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**	**Interpretation**
Lesbian	88	1.40	4.00	2.789	.610	Fair
Gay	223	1.40	4.80	2.869	.659	Fair

Bisexual	46	1.40	5.00	3.087	.804	Fair
Transgender	20	1.40	4.00	3.001	.602	Fair
Straight Male	153	1.40	5.00	2.915	.770	Fair
Straight Female	162	1.30	4.33	2.646	.642	Fair

Legend: 1.00-1.50 very Poor; 1.51-2.50 Poor; 2.51-3.50 Fair; 3.51-4.50 Good; 4.51-5.00 Very Good

These findings are consistent with studies showing that transgender and gender-diverse individuals often report lower or moderate levels of physical activity compared to cisgender heterosexual peers, due to barriers such as lack of inclusive facilities, discomfort in gendered spaces, and stigma (Schweizer et al., 2023; Austin et al., 2024). For example, a large 2023 study on trans and gender diverse adults found consistently lower physical behaviors compared with cisgender counterparts. Also, a 2021-2024 review of physical activity in TGD youth noted that safety concerns, facility access, and gender affirmation are significant factors limiting engagement.

Correlation Results on Mental Health and Body Image and Lifestyle Among Respondents

This section presents the correlation results between mental health indicators (depression, anxiety, and overall mental health) and the domains of body image and lifestyle (nutrition, physical activity, and general lifestyle) among respondents. The analysis employed Pearson's r and Spearman's rho tests, depending on data distribution, to determine whether mental health variables significantly relate to how respondents perceive their bodies and engage in lifestyle practices.

Exploring these associations is vital, as current research underscores the strong bidirectional link between mental health and health-related behaviors. Poor mental health, particularly depression and anxiety, has been shown to contribute to distorted body image, disordered eating patterns, and reduced engagement in physical activity (Alcaraz-Ibáñez & Sicilia, 2020; Linardon et al., 2022). Conversely, maintaining healthy nutrition and active lifestyles is often associated with better mental health outcomes (Schuch et al., 2020; Werneck et al., 2021). However, studies also emphasize that these relationships may vary depending on gender, sexual identity, and sociocultural contexts (Rodríguez-Cano et al., 2022).

By examining these correlations within the study population, this analysis provides insight into whether depression, anxiety, and overall mental health significantly influence respondents' perceptions of their body image and their engagement in nutrition, physical activity, and lifestyle behaviors. The results help identify whether mental health serves as a potential risk or protective factor in shaping health-related outcomes among diverse groups.

Table 18

Correlation among Depression, Body Image and Lifestyle of Lesbians

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	.246	.021	NS	.370	.000	NS	.223	.037	NS	.361	.001	S
Anxiety	.192	.074	NS	.270	.011	NS	.132	.220	NS	.247	.020	NS
Mental Health	.159	.138	NS	.262	.014	NS	.037	.730	NS	.191	.075	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Depression with Body Image, and Lifestyle of Lesbians

Depression among lesbians is weakly positively correlated with body image (r = .246, p = .021), indicating a significant relationship. This suggests that higher levels of depressive symptoms are associated with more negative perceptions of body image among respondents. Therefore, the null hypothesis that depression does not correlate with body image is rejected. This is consistent with findings by Tiggemann et al. (2022), who reported that depressive symptoms often co-occur with body dissatisfaction

Depression is weakly positively correlated with nutrition (r = .370, p < .001), showing a significant relationship. This implies that depressive symptoms are associated with certain nutritional behaviors or perceptions, and the null hypothesis is rejected. These results align with the study of Al-Kandri et al. (2024), which noted that depressive mood can influence dietary habits and food choices.

Mental health is weakly positively correlated with physical activity (r = .223, p = .037), indicating a significant relationship. This suggests that depressive symptoms may affect participation in physical activity. Therefore, the null hypothesis is rejected. Recent studies have found that depressive symptoms can reduce motivation and engagement in exercise, though some individuals may use physical activity as a coping mechanism (Nagata et al., 2022).

Depression is weakly positively correlated with lifestyle (r = .361, p = .001), indicating a significant relationship. This suggests that higher depressive symptoms are associated with less favorable lifestyle practices. Hence, the null hypothesis is rejected. This aligns with Linardon et al. (2023), who reported that mental health challenges can negatively influence overall lifestyle behaviors, including sleep, diet, and daily routines.

Table 19

Correlation among Depression, Body Image and Lifestyle of Gays

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	.119	.077	NS	.062	.356	NS	.113	.092	NS	.110	.100	NS
Anxiety	.186	.005	NS	.096	.154	NS	-.029	.666	NS	.038	.568	NS
Mental Health	-.031	.646	NS	.071	.288	NS	-.088	.189	NS	-.014	.830	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Depression with Body Image, and Lifestyle of Gays

Depression among gays does not correlate with body image (r = .119, p = .077). There is no significant relationship, hence the null hypothesis is not rejected. This suggests that depressive symptoms among gays are not strongly associated with body image concerns. According to Schvey et al. (2022), body image dissatisfaction in sexual minority men may be influenced more by sociocultural pressures than by depressive states.

Depression does not correlate with nutrition (r = .062, p = .356). The null hypothesis is not rejected, indicating no significant association between depression and nutritional practices. Recent findings show that while depression can affect eating habits, such links may not always be significant in community-based populations (Michels et al., 2020).

Depression does not correlate with physical activity (r = .113, p = .092). Thus, the null hypothesis is not rejected. Although depression is often linked to reduced motivation for exercise, this study suggests no significant relationship in the sample. Consistent with this, Stanton et al. (2020) noted that the association between depression and physical activity is context-dependent and may vary by subgroup.
Depression does not correlate with lifestyle (r = .110, p = .100). The null hypothesis is not rejected. This aligns with findings by Feter et al. (2021), who reported that while depression may influence some lifestyle behaviors, it is not a universal determinant across populations.

Table 20

Correlation among Depression, Body Image and Lifestyle of Bisexuals

	Body Image			**Nutrition**			**Physical Activity**			**Lifestyle**		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	-.346	.019	S	-.151	.318	NS	-.245	.100	NS	-.249	.095	NS
Anxiety	-.014	.928	NS	-.114	.450	NS	-.333	.024	S	-.296	.046	S
Mental Health	-.078	.606	NS	-.092	.542	NS	-.223	.136	NS	-.206	.170	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Depression with Body Image, and Lifestyle of Bisexuals

Among bisexual individuals, depression was found to have a significant negative correlation with body image (r = –.346, p = .019). Since the p-value is less than .05, the null hypothesis is rejected, indicating that higher levels of depression are associated with lower body image score. Conversely, depression did not show significant correlations with nutrition (r = -.151, p = .318), physical activity (r = –.245, p = .100), and lifestyle (r = –.249, p = .095) as all p-values exceeded the 0.5 threshold. Thus, the null hypotheses for these relationships are not rejected. This interpretation follows Papageorgiou (2022), who emphasized that correlation coefficients below approximately .30 are considered weak even when statistically significant.

Table 21

Correlation among Depression, Body Image and Lifestyle of Transgenders

	Body Image			**Nutrition**			**Physical Activity**			**Lifestyle**		
Variable	r	p-value	VI	r	p-value	VI	r	p-value	VI	r	P-value	VI
Depression	.085	.720	NS	.277	.236	NS	.482	.031	NS	.363	.116	NS
Anxiety	.241	.305	NS	.363	.115	NS	.070	.788	NS	.207	.380	NS
Mental Health	.298	.203	NS	.180	.447	NS	.363	.115	NS	.297	.204	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Depression with Body Image, and Lifestyle of Transgenders

Depression among transgender individuals does not correlate with body image (ρ = .085, p = .720), indicating no significant association; therefore, the null hypothesis is not rejected. Similarly, there is no

significant relationship between depression and nutrition (ρ = .277, p = .236) and between depression and lifestyle (ρ = .363, p = .116). However, depression shows a significant relationship with physical activity (ρ = .482, p = .031), suggesting that higher depressive symptoms among transgender individuals may be linked to reduced engagement in physical activity. Recent evidence highlights that depression is often associated with decreased motivation for exercise and disruptions in health behaviors, particularly in marginalized populations such as transgender individuals (Jones et al., 2021; Budge et al., 2022).

Table 22

Correlation among Depression, Body Image and Lifestyle of Straight Males

	Body Image			**Nutrition**			**Physical Activity**			**Lifestyle**		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	-.042	.606	NS	.168	.038	NS	.197	.014	NS	.213	.008	NS
Anxiety	.322	.000	NS	.060	.463	NS	-.126	.121	NS	-.043	.600	NS
Mental Health	.098	.227	NS	-.148	.067	NS	-.290	.000	NS	.258	.001	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Depression with Body Image, and Lifestyle of Straight Males

Depression among straight males does not correlate with body image (r = –.042, p = .606), indicating no significant association; thus, the null hypothesis is not rejected. On the other hand, depression was found to have a significant positive relationship with nutrition (r = .168, p = .038), physical activity (r = .197, p = .014), and lifestyle (r = .213, p = .008). These results suggest that higher depressive symptoms among straight males may be linked to greater concerns or changes in nutrition and lifestyle behaviors, as well as in physical activity engagement. This finding supports recent studies showing that mental health symptoms can influence daily routines and health-related behaviors, with individuals often altering their eating and activity patterns in response to psychological distress (Firth et al., 2020; Islam et al., 2023).

Depression with Body Image, and Lifestyle of Straight Females

Depression among straight females does not correlate with body image (r = .096, p = .223), as the result was not significant; therefore, the null hypothesis is not rejected. On the other hand, depression was found to have a significant positive relationship with nutrition (r = .167, p = .034), physical activity (r = .231, p = .003), and lifestyle (r = .244, p = .002).

Table 23

Correlation among Depression, Body Image and Lifestyle of Straight Females

	Body Image			**Nutrition**			**Physical Activity**			**Lifestyle**		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	.096	.223	NS	.167	.034	NS	.231	.003	NS	.244	.002	NS
Anxiety	-.025	.750	NS	.138	.080	NS	-.077	.328	NS	.029	.711	NS
Mental Health	.032	.684	NS	-.097	.220	NS	-.190	.015	NS	-.178	.024	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

This indicates that higher depressive symptoms are associated with increased concerns related to nutrition, engagement in physical activity, and overall lifestyle among straight females. These findings may suggest that depression influences how individuals regulate their eating habits and activity levels, as prior research highlights that depressive symptoms can alter lifestyle behaviors through emotional eating, inconsistent activity, or maladaptive coping mechanisms (Firth et al., 2020; Lee et al., 2021).

Table 24

Correlation among Anxiety, Body Image and Lifestyle of Lesbians

	Body Image			**Nutrition**			**Physical Activity**			**Lifestyle**		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	.246	.021	NS	.370	.000	NS	.223	.037	NS	.361	.001	S
Anxiety	.192	.074	NS	.270	.011	NS	.132	.220	NS	.247	.020	NS
Mental Health	.159	.138	NS	.262	.014	NS	.037	.730	NS	.191	.075	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Anxiety with Body Image, and Lifestyle of Lesbians

Anxiety among lesbians does not significantly correlate with body image (r = .192, p = .074), suggesting no meaningful association. Therefore, the null hypothesis is not rejected. This is in line with Tiggemann et al. (2022), who indicated that anxiety may not directly influence body image unless accompanied by comorbid depressive symptoms.

Anxiety is weakly positively correlated with nutrition (r = .270, p = .011), indicating a significant relationship. This suggests that higher anxiety levels are associated with certain nutritional behaviors or patterns. Therefore, the null hypothesis is rejected. Al-Kandri et al. (2024) also found that anxiety can influence eating habits often increasing emotional eating or irregular nutrition patterns.

Anxiety does not significantly correlate with physical activity (r = .132, p = .220), suggesting no meaningful association. Therefore, the null hypothesis is not rejected. Research by Nagata et al. (2022) noted that anxiety alone does not always affect physical activity unless compounded by depression or stress.

Anxiety is weakly but positively correlated with lifestyle (r = .247, p = .020), with a significant relationship. This implies that higher anxiety levels are weakly associated with less optimal lifestyle practices. Therefore, the null hypothesis is rejected. Linardon et al. (2023) also found that anxiety can influence sleep, daily routines, and lifestyle behaviors among young adults.

Anxiety with Body Image, and Lifestyle of Gays

Anxiety among gays does not correlate with body image (r = .186, p = .005). Although the correlation is weak and the p-value indicates statistical significance, the interpretation of "no significant relationship" remains as per the VI (NS). Thus, the null hypothesis is not rejected. Prior studies, however, note that anxiety can influence body image perceptions, especially among sexual minority men (Ganson et al., 2021).

Table 25

Correlation among Anxiety, Body Image and Lifestyle of Gays

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	.119	.077	NS	.062	.356	NS	.113	.092	NS	.110	.100	NS
Anxiety	.186	.005	NS	.096	.154	NS	-.029	.666	NS	.038	.568	NS
Mental Health	-.031	.646	NS	.071	.288	NS	-.088	.189	NS	-.014	.830	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Anxiety does not correlate with nutrition (r = .096, p = .154). Therefore, the null hypothesis is not rejected. This suggests no meaningful relationship, consistent with findings that anxiety may affect appetite but does not always predict nutritional choices (Isasi et al., 2020).

Anxiety does not correlate with physical activity (r = –.029, p = .666). Thus, the null hypothesis is not rejected. This indicates no significant association, supporting observations by Meyer et al. (2020) that anxiety may influence exercise engagement inconsistently across individuals.

Anxiety does not correlate with lifestyle (r = .038, p = .568). The null hypothesis is accepted, indicating no meaningful relationship between these variables. This aligns with Harrington et al. (2021) who found that anxiety symptoms affect lifestyle choices indirectly through stress mechanisms rather than direct associations.

Table 26

Correlation among Anxiety, Body Image and Lifestyle of Bisexuals

	Body Image			**Nutrition**			**Physical Activity**			**Lifestyle**		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	-.346	.019	S	-.151	.318	NS	-.245	.100	NS	-.249	.095	NS
Anxiety	-.014	.928	NS	-.114	.450	NS	-.333	.024	S	-.296	.046	S
Mental Health	-.078	.606	NS	-.092	.542	NS	-.223	.136	NS	-.206	.170	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Anxiety with Body Image, and Lifestyle of Bisexuals

The findings revealed that anxiety among bisexuals does not correlate with body image (r = –.014, p = .928) and nutrition (r = –.114, p = .450), indicating no significant relationship, as both p-values exceeded the .05 level. Therefore, the null hypotheses for these variables are not rejected.

However, anxiety demonstrated significant negative correlations with physical activity (r = –.333, p = .024) and lifestyle (r = –.296, p = .046). Since the p-values are less than .05, the null hypotheses for these relationships ae rejected, indicating that higher levels of anxiety are associated with lower levels of physical activity and less healthy lifestyle patterns. Although these coefficients show a negative relationship, they are not statistically significant, thus the null hypothesis is not rejected. Recent guidelines, these coefficients still fall within the range weak correlations (Lovakov and Agadullina, 2021; Schober et al., 2020; Weinerova et al., 2022), suggesting that while anxiety is significantly related to physical activity and lifestyle, the practical strength of these relationships is limited).

Table 27

Correlation among Anxiety, Body Image and Lifestyle of Transgenders

	Body Image			**Nutrition**			**Physical Activity**			**Lifestyle**		
Variable	r	p-value	VI	r	p-value	VI	r	p-value	VI	r	P-value	VI
Depression	.085	.720	NS	.277	.236	NS	.482	.031	NS	.363	.116	NS
Anxiety	.241	.305	NS	.363	.115	NS	.070	.788	NS	.207	.380	NS
Mental Health	.298	.203	NS	.180	.447	NS	.363	.115	NS	.297	.204	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Anxiety with Body Image, and Lifestyle of Transgenders

Anxiety among transgender individuals does not correlate with body image (ρ = .241, p = .305), nutrition (ρ = .363, p = .115), physical activity (ρ = .070, p = .788), or lifestyle (ρ = .207, p = .380). All results were not significant; therefore, the null hypothesis is not rejected. These findings suggest that while transgender individuals may experience elevated anxiety due to minority stressors, it may not have a direct effect on their health behaviors and body image outcomes. Prior studies also suggest that the effects of anxiety may manifest more in psychological well-being than in observable lifestyle behaviors (Testa et al., 2020; Shipherd et al., 2021).

Anxiety with Body Image, Nutrition, Physical Activity and Lifestyle of Straight Males

Anxiety among straight males was found to have a significant positive relationship with body image (r = .322, p < .001), suggesting that higher anxiety levels are associated with greater body image concerns among straight males. However, anxiety does not correlate with nutrition (r = .060, p = .463), physical activity (r = –.126, p = .121), and lifestyle (r = –.043, p = .600), as these were not significant; therefore, the null hypothesis is not rejected in these cases.

Table 28

Correlation among Anxiety, Body Image and Lifestyle Among Straight Males

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	-.042	.606	NS	.168	.038	NS	.197	.014	NS	.213	.008	NS
Anxiety	.322	.000	NS	.060	.463	NS	-.126	.121	NS	-.043	.600	NS
Mental Health	.098	.227	NS	-.148	.067	NS	-.290	.000	NS	.258	.001	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

This indicates that while anxiety may exacerbate self-perception and body image issues, its influence on broader lifestyle practices is less pronounced, consistent with findings that anxiety tends to manifest more strongly in appearance-related distress than in concrete health behaviors (Rodgers et al., 2021; Linardon et al., 2023).

Table 29

Correlation among Anxiety, Body Image and Lifestyle of Straight Females

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	.096	.223	NS	.167	.034	NS	.231	.003	NS	.244	.002	NS
Anxiety	-.025	.750	NS	.138	.080	NS	-.077	.328	NS	.029	.711	NS
Mental Health	.032	.684	NS	-.097	.220	NS	-.190	.015	NS	-.178	.024	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Anxiety with Body Image, and Lifestyle of Straight Females

Anxiety among straight females does not correlate with body image (r = –.025, p = .750), nutrition (r = .138, p = .080), physical activity (r = –.077, p = .328), and lifestyle (r = .029, p = .711). Since all results were not significant, the null hypothesis is not rejected. These findings imply that anxiety among straight females in this study sample does not significantly influence their body image, nutritional habits, physical activity, or overall lifestyle. While some literature reports links between anxiety and maladaptive health behaviors (Olatunji et al., 2020), the present findings suggest that such associations were not evident in this group.

Table 30

Correlation among Mental Health, Body Image and Lifestyle of Lesbians

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	.246	.021	NS	.370	.000	NS	.223	.037	NS	.361	.001	S
Anxiety	.192	.074	NS	.270	.011	NS	.132	.220	NS	.247	.020	NS
Mental Health	.159	.138	NS	.262	.014	NS	.037	.730	NS	.191	.075	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Mental Health with Body Image, and Lifestyle of Lesbians

Overall, mental health among lesbian does not show a significant correlation with body image (r = 0.159, p = 0.138), indicating no meaningful association. Therefore, the null hypothesis is not rejected. This aligns with Tiggemann et al. (2022), who reported that broader mental health indicators may not always directly relate to body image.

Mental health weakly positively correlated with nutrition (r = .262, p = .0140, showing a significant relationship. This suggests that better mental health is associated with more favorable nutritional behaviors. Hence, the null hypothesis is rejected. Al-Kandari et al. (2024) emphasized that mental health can influence dietary choices and eating habits among young adults.

Mental health does not significantly correlate with physical activity (r = .037, p = .730), indicating no meaningful association. Therefore, the null hypothesis is not rejected. Nagata et al. (2022) reported similar findings, noting that general mental health status alone may not predict exercise participation.

Mental health does not significantly correlate with lifestyle (r = .191, p = .075), suggesting no significant relationship. Therefore, the null hypothesis is not rejected. Linardon et al. (2023) found that broader mental health measures may not always translate into significant lifestyle differences without considering specific psychological stressors.

Table 31

Correlation among Mental Health, Body Image and Lifestyle of Gays

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	.119	.077	NS	.062	.356	NS	.113	.092	NS	.110	.100	NS
Anxiety	.186	.005	NS	.096	.154	NS	-.029	.666	NS	.038	.568	NS
Mental Health	-.031	.646	NS	.071	.288	NS	-.088	.189	NS	-.014	.830	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Overall Mental Health with Body Image and Lifestyle of Gays

Overall, mental health among gays does not correlate with body image (r = –.031, p = .646). The null hypothesis is not rejected, indicating no significant association. This agrees with findings that body image concerns in gay men may be more influenced by external social norms than by general mental health status (Nagata et al., 2020).

Mental health does not correlate with nutrition (r = .071, p = .288). The null hypothesis is not rejected. Prior evidence also suggests that mental health and diet are interrelated but not always directly correlated (Jacka et al., 2021).

Mental health does not correlate with physical activity (r = –.088, p = .189). The null hypothesis is not rejected, suggesting no significant relationship. According to Chu et al. (2021), while physical activity supports mental health, the reverse correlation may not always hold.

Mental health does not correlate with lifestyle (r = –.014, p = .830). The null hypothesis is not rejected. This suggests that lifestyle among gay men may be shaped more by social and cultural influences rather than overall mental health status (Suen et al., 2022).

Table 32

Correlation among Mental Health, Body Image and Lifestyle of Bisexuals

	Body Image			**Nutrition**			**Physical Activity**			**Lifestyle**		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	-.346	.019	S	-.151	.318	NS	-.245	.100	NS	-.249	.095	NS
Anxiety	-.014	.928	NS	-.114	.450	NS	-.333	.024	S	-.296	.046	S
Mental Health	-.078	.606	NS	-.092	.542	NS	-.223	.136	NS	-.206	.170	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Mental Health with Body Image, and Lifestyle of Bisexuals

Mental health among bisexuals does not correlate with body image (r = –.078, p = .606), nutrition (r = –.092, p = .542), physical activity (r = –.223, p = .136), and lifestyle (r = –.206, p = .170). These results indicate that poor mental health does not significantly predict changes in self-perception or health-related behaviors among bisexual respondents, thus the null hypothesis is not rejected. This is consistent with current findings suggesting that bisexual individuals' health outcomes are influenced more by external factors such as stigma and minority stress rather than internalized mental health status alone (Bostwick et al., 2020; Puckett et al., 2022).

Table 33

Correlation among Mental Health, Body Image and Lifestyle of Transgenders

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	r	p-value	VI	r	p-value	VI	r	p-value	VI	r	P-value	VI
Depression	.085	.720	NS	.277	.236	NS	.482	.031	NS	.363	.116	NS
Anxiety	.241	.305	NS	.363	.115	NS	.070	.788	NS	.207	.380	NS
Mental Health	.298	.203	NS	.180	.447	NS	.363	.115	NS	.297	.204	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Mental Health with Body Image, and Lifestyle of Transgenders

Mental health among transgenders does not correlate with body image (ρ = .298, p = .203), nutrition (ρ = .180, p = .447), physical activity (ρ = .363, p = .115), and lifestyle (ρ = .297, p = .204). All results were not significant, and thus the null hypothesis is not rejected. This indicates that overall mental health, as measured in this study, does not significantly influence body image and lifestyle domains among transgender respondents. Previous literature suggests that while transgender individuals face unique mental health challenges, protective factors such as social support and resilience may buffer the direct impact on health behaviors (Barr et al., 2021; Hughto et al., 2022).

Table 34

Correlation among Mental Health, Body Image and Lifestyle of Straight Males

	Body Image			**Nutrition**			**Physical Activity**			**Lifestyle**		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	-.042	.606	NS	.168	.038	NS	.197	.014	NS	.213	.008	NS
Anxiety	.322	.000	NS	.060	.463	NS	-.126	.121	NS	-.043	.600	NS
Mental Health	.098	.227	NS	-.148	.067	NS	-.290	.000	NS	.258	.001	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Mental Health, Body Image, and Lifestyle of Straight Males

Mental health among straight males does not correlate with body image (r = .098, p = .227) and nutrition (r = –.148, p = .067), with no significant results observed; hence, the null hypothesis is not rejected for these domains. However, a significant negative relationship was observed between mental health and

physical activity (r = –.290, p < .001) and lifestyle (r = –.258, p = .001). This implies that poorer mental health is linked with reduced physical activity and less healthy lifestyle practices. This result aligns with recent evidence that declining mental health often leads to lower motivation and reduced engagement in positive health behaviors, particularly physical activity and lifestyle management (McDowell et al., 2021; Schuch & Stubbs, 2022).

Mental Health with Body Image, and Lifestyle of Straight Females

Mental health among straight females does not correlate with body image (r = .032, p = .684) and nutrition (r = –.097, p = .220), as the results were not significant, thus the null hypothesis is not rejected. However, mental health shows a significant negative correlation with physical activity (r = –.190, p = .015) and lifestyle (r = –.178, p = .024). This suggests that poorer mental health is associated with lower levels of physical activity and less healthy lifestyle practices among straight females.

Table 35

Correlation among Mental Health, Body Image and Lifestyle of Straight Females

	Body Image			**Nutrition**			**Physical Activity**			**Lifestyle**		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	.096	.223	NS	.167	.034	NS	.231	.003	NS	.244	.002	NS
Anxiety	-.025	.750	NS	.138	.080	NS	-.077	.328	NS	.029	.711	NS
Mental Health	.032	.684	NS	-.097	.220	NS	-.190	.015	NS	-.178	.024	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

These results are consistent with findings that poor psychological well-being often leads to sedentary behaviors and less engagement in health-promoting activities (Richardson et al., 2020; Meyer et al., 2022).

Correlation Results Among Mental Health, Body Image and Lifestyle Across all Respondents

Overall, this section presents the correlation results between mental health (depression, anxiety, and overall mental health) and the domains of body image and lifestyle (nutrition, physical activity, and general lifestyle) among respondents. The analysis was conducted using Pearson's rho and Spearman's rho correlation tests, depending on the distribution of the data. The purpose of this analysis was to determine whether substance use behaviors are significantly associated with respondents' perceptions of their body image and their engagement in health-related lifestyle practices.

The observed patterns are consistent with recent studies highlighting the bidirectional link between mental health and lifestyle behaviors. According to a recent review, psychological distress often disrupts nutrition and activity patterns, while poor lifestyle choices may in turn exacerbate depressive and anxiety symptoms (Schuch et al., 2021; Firth et al., 2020). Likewise, evidence suggests that substance use is strongly associated with maladaptive body image perceptions and reduced engagement in healthy behaviors (Fernández-Rodríguez et al., 2022; Li et al., 2023). These findings reinforce the interconnectedness of mental health, substance use, body image, and lifestyle, underscoring the need for integrated health promotion strategies.

Table 36 presents the correlation among mental health indicators (depression and anxiety) and the outcome variables (body image, nutrition, physical activity, and lifestyle).

Table 36

Overall Correlation among Mental Health, Body Image and Lifestyle

	Body Image			**Nutrition**			**Physical Activity**			**Overall Lifestyle**		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Depression	.063	.099	NS	.136	.000	S	.143	.000	S	.168	.000	S
Anxiety	.174	.000	S	.107	.005	S	-.076	.047	S	.014	.704	NS
Mental Health	.049	.197	NS	.000	.998	NS	-.151	.000	NS	-.094	.013	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Overall Depression with Body Image and Lifestyle

The analysis revealed that depression had no significant relationship with body image (r = .063, p = .099), indicating that depressive symptoms do not directly influence perceptions of body image among respondents. However, depression was found to be significantly associated with nutrition (r = .136, p < .001), physical activity (r = .143, p < .001), and lifestyle (r = .168, p <.001). Thus, the null hypotheses are rejected. These findings suggest that higher levels of depressive symptoms are linked to less favorable health-related behaviors, consistent with research indicating that depression often impairs healthy routines and lifestyle choices (Mukaka and Ismail, 2022).

Overall Anxiety with Body Image and Lifestyle

The results in Table 54, a significant positive correlation was observed with body image (r = .174, p < .001) and nutrition (r = .107, p = .005). While a significant negative correlation emerged with physical activity (r = -.076, p = .047). Thus, the null hypothesis is rejected. This implies that higher anxiety levels are associated with more concerns about body image and nutrition, yet lower engagement in physical activity.

No significant relationship was found between anxiety and lifestyle (r = .014, p = .704), suggesting that generalized anxiety symptoms do not necessarily translate into overall lifestyle patterns. Thus, the null hypothesis is not rejected. This aligns with evidence that anxiety is often context-specific in its behavioral impact (Papageorgiou, 2022).

Overall Mental Health with Body Image and Lifestyle

The composite mental health variable did not show a significant correlation with body image (r = .049, p = .197), nutrition (r = .000, p = .998), physical activity (r = -.151, p < .000) and lifestyle (r = -.094, p < .013). Thus, the null hypotheses are not rejected. The generally weak or non-significant correlations align with recent evidence suggesting that composite or global measures of mental health typically yield only modest associations with broad lifestyle indicators in non-clinical, community samples. Stronger and more consistent relationships are often observed with more direct behavioral factors, such as physical activity, compared to broader constructs like nutrition or body image. According to a systematic review published in BioMed Central, physical activity is frequently associated with improved mental well-being; however, the magnitude of these associations with overall lifestyle outcomes tends to diminish once confounding variables and moderating factors are considered.

Correlation of Substance Use with Body Image and Lifestyle

This section presents the correlation results between substance use (alcohol use, drug use, and overall substance use) and the domains of body image and lifestyle (nutrition, physical activity, and general lifestyle) among respondents. The analysis was conducted using Pearson's r and Spearman's rho correlation tests, depending on the distribution of the data. The purpose of this analysis was to determine whether substance use behaviors are significantly associated with respondents' perceptions of their body image and their engagement in health-related lifestyle practices.

Understanding these relationships is important because existing literature highlights that substance use can negatively influence lifestyle patterns, including eating behaviors, physical activity, and psychological well-being, which in turn may affect body image (Dye, 2020; Sharma & Sharma, 2021). However, previous studies have also noted inconsistencies, as the impact of substance use on body image and lifestyle varies across gender, age, and sexual identity (Ransing et al., 2020; Rodríguez-Cano et al., 2022). By exploring these correlations within the present study's population, the analysis provides further insight into whether substance use has a direct, measurable relationship with health-related behaviors and self-perception, or whether other mediating factors play a more dominant role.

The following subsections detail the correlation results for alcohol use, drug use, and substance use in relation to body image, nutrition, physical activity, and lifestyle among the different groups of respondents.

Alcohol Use with Body Image, and Lifestyle Among Lesbians

Alcohol use among lesbians in Table 36 does not significantly correlate with body image (r = -.104, p = .333), indicating no meaningful relationship. Therefore, the null hypothesis that alcohol use does not correlate with body image is not rejected. This is consistent with the study of Li et al. (2021), who found that alcohol consumption is more often related to coping and social behaviors than to body image perceptions.

Alcohol use does not significantly correlate with nutrition (r = -.089, p = .408). This suggests no meaningful relationship between alcohol consumption and nutritional behaviors. Hence, the null hypothesis is not rejected. Recent evidence from Behm et al. (2021) shows that alcohol consumption may affect caloric intake, but its direct correlation with nutrition patterns is inconsistent.

Table 37

Correlation Among Alcohol Use, Body Image and Lifestyle of Lesbians

	Body Image			Nutrition			Physical Activity			Lifestyle Overall		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.104	.333	NS	-.089	.408	NS	-.064	.554	NS	-.093	.391	NS
Drug Use	-.073	.498	NS	.069	.521	NS	.006	.959	NS	-.073	.498	NS
Substance Use	-.112	.299	NS	-.056	.603	NS	-.053	.622	NS	-.065	.546	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Alcohol use does not significantly correlate with physical activity (r = -.064, p = .554), suggesting no meaningful association. Thus, the null hypothesis is not rejected. A study by White et al. (2020)

emphasized that while some individuals who drink alcohol engage in physical activity to offset weight gain, these patterns are not consistently significant.

Alcohol use does not significantly correlate with lifestyle (r = -.093, p = .391). Therefore, the null hypothesis is not rejected. This supports findings from Manthey et al. (2022), who noted that alcohol use alone does not always determine overall lifestyle quality, though heavy drinking may contribute to negative health outcomes.

Table 38

Correlation among Alcohol Use, Body Image and Lifestyle Among Gays

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.093	.165	NS	-.032	.638	NS	.135	.045	S	.068	.310	NS
Drug Use	-.103	.123	NS	-.118	.079	NS	.049	.483	NS	-.039	.587	NS
Substance Use	-.113	.094	NS	-.068	.313	NS	.126	.059	NS	.041	.539	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Alcohol Use with Body Image, and Lifestyle Among Gays

Alcohol use among gays does not correlate with body image (r = –.093, p = .165). There is no significant relationship; therefore, the null hypothesis is not rejected. This implies that alcohol consumption among gay respondents is not significantly associated with body image concerns. Previous research suggests that while alcohol use may indirectly affect body image through social comparison or risky environments, the direct correlation is often weak (Perales et al., 2020).

Alcohol use does not correlate with nutrition (r = –.032, p = .638). There is no significant relationship, and the null hypothesis is not rejected. This indicates that alcohol intake does not directly influence dietary practices in this group. Consistent findings highlight that alcohol use can affect eating patterns in some populations, but effects vary depending on social context (Firth et al., 2021).

Alcohol use shows a very weak positive correlation with physical activity (r = .135, p = .045). Since the p-value is less than 0.05, the result is statistically significant, and the null hypothesis of no relationship is therefore rejected. However, despite statistical significance, the effect size is negligible, indicating that alcohol use and physical activity are only weakly associated and not physically meaningful in this study. This aligns with Papageorgiou (2022), who emphasized that correlation coefficients below approximately .30 are generally considered weak, even when statistically significant.

Alcohol use does not correlate with lifestyle (r = .068, p = .310). There is no significant relationship, and the null hypothesis is not rejected. This suggests that overall lifestyle behaviors among gay respondents are not substantially influenced by alcohol consumption. Literature also indicates that while alcohol is part of lifestyle patterns, its association with broader lifestyle outcomes is context-dependent (Foster & Kuntsche, 2020).

Table 39

Correlation Among Alcohol Use, Body Image and Lifestyle of Bisexuals

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.023	.882	NS	.271	.068	NS	.423	.003	S	.434	.003	S
Drug Use	-.283	.057	NS	-.283	.057	NS	-.316	.032	S	-.362	.013	S
Substance Use	-.047	.757	NS	.245	.101	NS	.392	.007	S	.400	.006	S

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Alcohol Use with Body Image, and Lifestyle Among Bisexuals

Alcohol use among bisexuals does not correlate with body image (r = –.023, p = .882), hence the null hypothesis is not rejected. Likewise, there is no significant relationship between alcohol use and nutrition (r = .271, p = .068). In contrast, alcohol use demonstrated a moderate positive correlation with both physical activity (r = .423, p = .003) and lifestyle (r = .434, p = .003). Since the p –values for these associations are below .05, the null hypothesis is rejected, indicating statistically significant relationships. However, while these findings suggest that higher alcohol consumption may be associated with certain lifestyle behaviors and physical activity patterns, recent literature emphasizes that statistical significance does not necessarily equate to practical significance, and correlations must be interpreted in terms of strength and context. (Lovakov and Agadullina, 2021; Schober et al 2020; Weinerova et al., 2022).

Table 40

Correlation among Alcohol Use, Body Image and Lifestyle of Transgenders

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	r	p-value	VI	r	p-value	VI	r	p-value	VI	r	p-value	VI
Alcohol Use	-.164	.491	NS	-.195	.411	NS	.061	.799	NS	-.024	.921	NS
Drug Use	-.053	.823	NS	-.207	.382	NS	-.233	.323	NS	-.240	.309	NS
Substance Use	-.165	.488	NS	-.239	.309	NS	.012	.961	NS	-.076	.749	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Alcohol Use with Body Image, and Lifestyle Among Transgenders

Alcohol use among transgenders does not correlate with body image (ρ = –.164, p = .491), nutrition (ρ = –.195, p = .411), physical activity (ρ = .061, p = .799), and lifestyle (ρ = –.024, p = .921). All results were not significant, and therefore the null hypothesis is not rejected. This indicates that alcohol use among transgender respondents does not significantly affect their perception of body image or their engagement in nutrition, physical activity, and lifestyle behaviors. Recent studies similarly suggest that while alcohol

use is common among gender minority groups, its influence on body image and lifestyle behaviors may be more complex and mediated by factors such as minority stress and coping strategies (Boyd et al., 2020; Coulter et al., 2022).

Table 41

Correlation among Alcohol Use, Body Image and Lifestyle of Straight Males

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.227	.005	NS	-.053	.519	NS	.038	.642	NS	-.006	.937	NS
Drug Use	-.149	.067	NS	-.095	.241	NS	-.152	.061	NS	-.145	.076	NS
Substance Use	-.241	.003	NS	-.072	.375	NS	-.007	.927	NS	-.045	.582	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Alcohol Use with Body Image, and Lifestyle Among Straight Males

Alcohol use among straight males was found to have a significant negative correlation with body image (r = –.227, p = .005), indicating that higher alcohol consumption is associated with poorer body image among straight males. This suggests that increased alcohol use may exacerbate body dissatisfaction or negative self-perceptions, consistent with literature linking alcohol misuse to lowered self-esteem and body-related concerns (Griffiths et al., 2021). On the other hand, alcohol use does not correlate with nutrition (r = –.053, p = .519), physical activity (r = .038, p = .642), and lifestyle (r = –.006, p = .937), as these results were not significant; hence, the null hypothesis is not rejected in these cases.

Table 42

Correlation among Alcohol Use, Body Image and Lifestyle of Straight Females

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.114	.149	NS	.054	.495	NS	.052	.513	NS	.064	.417	NS
Drug Use	-.064	.416	NS	-.054	.491	NS	.010	.900	NS	-.025	.754	NS
Substance Use	-.122	.122	NS	.044	.577	NS	.052	.509	NS	.059	.457	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Alcohol Use with Body Image, and Lifestyle Among Straight Females

Alcohol use among straight females does not correlate with body image (r = –.114, p = .149), nutrition (r = .054, p = .495), physical activity (r = .052, p = .513), and lifestyle (r = .064, p = .417). All results were not significant; therefore, the null hypothesis is not rejected. This indicates that alcohol use among straight females in this study does not significantly influence body image perceptions, dietary habits, engagement in physical activity, or overall lifestyle. Similar findings were noted in recent studies, which suggest that

alcohol consumption may not always show a direct or consistent relationship with health behaviors, as other psychosocial and cultural factors moderate these associations (Lozano et al., 2021; Rodríguez-Cano et al., 2022).

Drug Use with Body Image, and Lifestyle Among Lesbians

Drug use among lesbians in Table 42 does not significantly correlate with body image (r = -.073, p = .498). Thus, the null hypothesis is not rejected. This finding is in line with Palamar et al. (2021), who indicated that recreational or experimental drug use is more strongly associated with peer influence and mental health than with body image.

Table 43

Correlation among Drug Use, Body Image and Lifestyle of Lesbians

	Body Image			Nutrition			Physical Activity			Lifestyle Overall		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.104	.333	NS	-.089	.408	NS	-.064	.554	NS	-.093	.391	NS
Drug Use	-.073	.498	NS	.069	.521	NS	.006	.959	NS	-.073	.498	NS
Substance Use	-.112	.299	NS	-.056	.603	NS	-.053	.622	NS	-.065	.546	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Drug use does not significantly correlate with nutrition (r = .069, p = .521). Therefore, the null hypothesis is not rejected. Research by Hartwell et al. (2020) showed that while drug use can impair appetite and dietary regulation, the relationship is complex and not uniformly significant.

Drug use does not significantly correlate with physical activity (r = .006, p = .959). Therefore, the null hypothesis is not rejected. This supports studies suggesting that drug use is more likely to disrupt routines rather than be directly linked with physical activity (lope-Quintero et al., 2021).

Drug use does not significantly correlate with lifestyle (r = -.073, p = .498). Thus, null hypothesis is not rejected. Prior research has emphasized that lifestyle deterioration is more evident in chronic or dependent drug use rather than in general population samples (Palamar et al., 2021).

Drug Use with Body Image, and Lifestyle Among Gays

Drug use among gays does not correlate with body image (r = –.103, p = .123). There is no significant relationship, and the null hypothesis is not rejected. This suggests that body image perceptions among gay respondents are not directly affected by drug use. Similar findings show that drug use often relates more strongly to psychological distress rather than body image per se (Bränström et al., 2021).

Table 44

Correlation among Drug Use, Body Image and Lifestyle of Gays

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.093	.165	NS	-.032	.638	NS	.135	.045	S	.068	.310	NS

Drug Use	-.103	.123	NS	-.118	.079	NS	.049	.483	NS	-.039	.587	NS
Substance Use	-.113	.094	NS	-.068	.313	NS	.126	.059	NS	.041	.539	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Drug use does not correlate with nutrition (r = –.118, p = .079). The null hypothesis is not rejected, indicating no significant association. Although substance use can influence appetite or eating behaviors, this study suggests no strong correlation with nutritional habits. Research indicates that the relationship between drug use and nutrition varies, often mediated by mental health status (Puhl et al., 2021).

Drug use does not correlate with physical activity (r = .049, p = .483). There is no significant relationship; hence, the null hypothesis is not rejected. This aligns with studies suggesting that substance use is more likely linked with sedentary lifestyles rather than directly influencing physical activity (Heffner et al., 2021).

Drug use does not correlate with lifestyle (r = –.039, p = .587). The null hypothesis is not rejected, showing no significant link between drug use and lifestyle practices. Prior studies note that drug use may cluster with risky behaviors but does not necessarily predict overall lifestyle (Wang et al., 2020).

Table 45

Correlation Among Drug Use, Body Image and Lifestyle of Bisexuals

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.023	.882	NS	.271	.068	NS	.423	.003	S	.434	.003	S
Drug Use	-.283	.057	NS	-.283	.057	NS	-.316	.032	S	-.362	.013	S
Substance Use	-.047	.757	NS	.245	.101	NS	.392	.007	S	.400	.006	S

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Drug Use with Body Image, and Lifestyle Among Bisexuals

Drug use among bisexuals does not correlate with body image (r = –.283, p = .057) and nutrition (r = –.283, p = .057), as results were not statistically significant, thus the null hypothesis is not rejected. On the contrary, drug use demonstrated significant negative correlations with physical activity (r = –.316, p = .032) and lifestyle (r = –.362, p = .013), indicating that greater substance use associated with lower engagement in health-promoting lifestyle behaviors. Since both p-values are less than .05, the null hypotheses are rejected. Although these coefficients are statistically significant, recent literature suggests that correlation magnitudes in this range falls into weak to moderate category and should be interpreted regarding practical relevance (Papageorgiou, 2022).

Table 46

Correlation among Alcohol Use, Body Image and Lifestyle of Transgenders

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	r	p-value	VI	r	p-value	VI	r	p-value	VI	r	p-value	VI
Alcohol	-	.491	NS	-.195	.411	NS	.061	.799	NS	-.024	.921	NS

Use	.164											
Drug Use	-.053	.823	NS	-.207	.382	NS	-.233	.323	NS	-.240	.309	NS
Substance Use	-.165	.488	NS	-.239	.309	NS	.012	.961	NS	-.076	.749	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Drug Use with Body Image, and Lifestyle Among Transgenders

Drug use among transgenders does not correlate with body image (ρ = –.053, p = .823), nutrition (ρ = –.207, p = .382), physical activity (ρ = –.233, p = .323), and lifestyle (ρ = –.240, p = .309). These findings are not significant, and the null hypothesis is not rejected. This suggests that drug use does not significantly shape how transgender individuals perceive their body image or maintain nutrition, physical activity, and lifestyle practices. Evidence shows that while transgender individuals are at higher risk of substance use due to discrimination and stress, direct associations with health behaviors often remain inconsistent (Newcomb et al., 2020; Gonzalez et al., 2022).

Drug Use with Body Image, and Lifestyle Among Straight Males

Drug use among straight males in Table 46 does not correlate with body image (r = –.149, p = .067), nutrition (r = –.095, p = .241), physical activity (r = –.152, p = .061), and lifestyle (r = –.145, p = .076), as all results were not significant; thus, the null hypothesis is not rejected. While there is a weak negative trend in the associations, these findings suggest that drug use among straight males may not directly influence body image and lifestyle domains in this study sample.

Table 47

Correlation among Drug Use, Body Image and Lifestyle Among Straight Males

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.227	.005	NS	-.053	.519	NS	.038	.642	NS	-.006	.937	NS
Drug Use	-.149	.067	NS	-.095	.241	NS	-.152	.061	NS	-.145	.076	NS
Substance Use	-.241	.003	NS	-.072	.375	NS	-.007	.927	NS	-.045	.582	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Previous studies indicate that drug misuse often affects overall health outcomes and psychosocial functioning but does not consistently translate into body image or lifestyle behaviors unless usage is severe or prolonged (Pugh et al., 2020; Evans et al., 2022).

Table 48

Correlation among Drug Use, Body Image and Lifestyle Among Straight Females

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI

Alcohol Use	-.114	.149	NS	.054	.495	NS	.052	.513	NS	.064	.417	NS
Drug Use	-.064	.416	NS	-.054	.491	NS	.010	.900	NS	-.025	.754	NS
Substance Use	-.122	.122	NS	.044	.577	NS	.052	.509	NS	.059	.457	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Drug Use with Body Image, and Lifestyle Among Straight Females

Drug use among straight females in Table 47 does not correlate with body image (r = –.064, p = .416), nutrition (r = –.054, p = .491), physical activity (r = .010, p = .900), and lifestyle (r = –.025, p = .754). All results were not significant; hence, the null hypothesis is not rejected. This finding implies that drug use among straight females does not show measurable effects on their body image, nutritional practices, physical activity, or lifestyle behaviors. This aligns with recent evidence suggesting that while drug use has long-term health risks, its immediate association with lifestyle behaviors can be inconsistent, particularly in non-clinical populations (Ransing et al., 2020; Davoren et al., 2021).

Table 49

Correlation among Substance Use, Body Image and Lifestyle of Lesbians

	Body Image			Nutrition			Physical Activity			Lifestyle Overall		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.104	.333	NS	-.089	.408	NS	-.064	.554	NS	-.093	.391	NS
Drug Use	-.073	.498	NS	.069	.521	NS	.006	.959	NS	-.073	.498	NS
Substance Use	-.112	.299	NS	-.056	.603	NS	-.053	.622	NS	-.065	.546	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Overall Substance Use with Body Image, and Lifestyle Among Lesbians

Substance use among lesbians does not significantly correlate with body image (r = -.112, p = .299). Hence, the null hypothesis is not rejected. This is consistent with findings by Nagata et al. (2022), who reported that while substance use can influence health behaviors, its link to body image is indirect.

Substance use does not significantly correlate with nutrition (r = -.056, p = .603). Therefore, the null hypothesis is not rejected. Similar results were reported by Rehm et al. (2021), noting that substance use may indirectly affect diet through appetite changes, but correlations remain inconsistent.

Substance use does not significantly correlate with physical activity (r = -.053, p = .622). Thus, the null hypothesis is not rejected. Lopez-Quintero et al. (2021) highlighted that while substance use can impair motivation, the relationship with physical activity is weak in non-dependent populations.

Substance use does not significantly correlate with lifestyle (r = -.065, p = .546). Hence, the null hypothesis is not rejected. This supports the study of Manthey et al. (2022), which observed that lifestyle impacts of substance use are more pronounced in heavy and chronic use cases.

Table 50

Correlation among Substance Use, Body Image and Lifestyle Among Gays

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.093	.165	NS	-.032	.638	NS	.135	.045	S	.068	.310	NS
Drug Use	-.103	.123	NS	-.118	.079	NS	.049	.483	NS	-.039	.587	NS
Substance Use	-.113	.094	NS	-.068	.313	NS	.126	.059	NS	.041	.539	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Substance Use with Body Image, and Lifestyle Among Gays

Substance use among gays does not correlate with body image (r = –.113, p = .094). There is no significant relationship; therefore, the null hypothesis is not rejected. This suggests that body image among gay respondents is not significantly influenced by combined substance use. Research supports that sexual minority men's body image concerns are more influenced by sociocultural pressures than substance use behaviors (Nagata et al., 2020).

Substance use does not correlate with nutrition (r = –.068, p = .313). There is no significant relationship, and the null hypothesis is not rejected. This aligns with studies indicating that while substance use can disrupt dietary routines, no consistent direct relationship is established (Firth et al., 2021).

Substance use does not correlate with physical activity (r = .126, p = .059). There is no significant relationship; thus, the null hypothesis is not rejected. This means that substance use is not a strong determinant of physical activity among gays. Prior studies also note that while some drug use may be associated with increased activity in nightlife contexts, these are situational rather than general patterns (Gates et al., 2021).

Substance use does not correlate with lifestyle (r = .041, p = .539). There is no significant relationship; the null hypothesis is not rejected. This finding suggests that lifestyle practices are not directly associated with substance use in this population, supporting findings that broader social determinants play a greater role (Bränström et al., 2021).

Table 51

Correlation among Substance Use, Body Image and Lifestyle of Bisexuals

	Body Image			**Nutrition**			**Physical Activity**			**Lifestyle**		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.023	.882	NS	.271	.068	NS	.423	.003	S	.434	.003	S
Drug Use	-.283	.057	NS	-.283	.057	NS	-.316	.032	S	-.362	.013	S
Substance Use	-.047	.757	NS	.245	.101	NS	.392	.007	S	.400	.006	S

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Substance Use with Body Image, and Lifestyle Among Bisexuals

Substance use among bisexuals did not show significant correlations with body image (r = –.047, p = .757) and nutrition (r = .245, p = .101), with results showing that the null hypotheses are not rejected. On the other hand, substance use significantly correlated with physical activity (r = .392, p = .007) and lifestyle (r = .400, p = .006), suggesting a significant association. Thus, the null hypotheses are rejected. This implies that higher levels of substance use are connected to variations in lifestyle behaviors, particularly in terms of physical activity engagement. Current studies show that substance use can interfere with maintaining a healthy lifestyle, often leading to inconsistent or maladaptive patterns in health-related activities (Pereira et al., 2022; Rehm & Shield, 2021).

Table 52

Correlation Among Substance Use, Body Image and Lifestyle of Transgenders

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	r	p-value	VI	r	p-value	VI	r	p-value	VI	r	p-value	VI
Alcohol Use	-.164	.491	NS	-.195	.411	NS	.061	.799	NS	-.024	.921	NS
Drug Use	-.053	.823	NS	-.207	.382	NS	-.233	.323	NS	-.240	.309	NS
Substance Use	-.165	.488	NS	-.239	.309	NS	.012	.961	NS	-.076	.749	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Substance Use with Body Image, and Lifestyle Among Transgenders

Substance among transgenders use does not correlate with body image (ρ = –.165, p = .488), nutrition (ρ = –.239, p = .309), physical activity (ρ = .012, p = .961), and lifestyle (ρ = –.076, p = .749). All results were not significant; hence, the null hypothesis is not rejected. This indicates that overall substance use among transgender respondents does not show a measurable impact on body image or lifestyle behaviors. Studies emphasize that although substance use is a critical health concern in transgender populations, broader structural and psychosocial factors—such as stigma, limited healthcare access, and resilience—may play a more dominant role in shaping health outcomes than direct behavioral correlations (Hughto et al., 2021; Flentje et al., 2020).

Table 53

Correlation among Substance Use, Body Image and Lifestyle Among Straight Males

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.227	.005	NS	-.053	.519	NS	.038	.642	NS	-.006	.937	NS
Drug Use	-.149	.067	NS	-.095	.241	NS	-.152	.061	NS	-.145	.076	NS

Substance Use	-.241	.003	NS	-.072	.375	NS	-.007	.927	NS	-.045	.582	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

Substance Use with Body Image, and Lifestyle Among Straight Males

Substance use among straight males was found to have a significant negative correlation with body image (r = –.241, p = .003), suggesting that higher levels of substance use are linked with greater body image concerns or dissatisfaction. This aligns with research noting that substance use can exacerbate negative self-perceptions, often as a coping mechanism for body dissatisfaction (Kelly et al., 2021). However, substance use does not correlate with nutrition (r = –.072, p = .375), physical activity (r = –.007, p = .927), and lifestyle (r = –.045, p = .582), as these results were not significant; therefore, the null hypothesis is not rejected for these domains.

Substance Use with Body Image, and Lifestyle Among Straight Females

Substance use among straight females does not correlate with body image (r = –.122, p = .122), nutrition (r = .044, p = .577), physical activity (r = .052, p = .509), and lifestyle (r = .059, p = .457). Since all p-values are greater than .05 threshold, the null hypotheses of no relationship are not rejected.

Table 54

Correlation among Substance Use, Body Image and Lifestyle of Straight Females

	Body Image			Nutrition			Physical Activity			Lifestyle		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.114	.149	NS	.054	.495	NS	.052	.513	NS	.064	.417	NS
Drug Use	-.064	.416	NS	-.054	.491	NS	.010	.900	NS	-.025	.754	NS
Substance Use	-.122	.122	NS	.044	.577	NS	.052	.509	NS	.059	.457	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

These findings indicate that the level of substance use among respondents does not appear to have direct or measurable impact on their body image perceptions, dietary practices, engagement in physical activity, or overall lifestyle behaviors. This suggests that substance use operates independently from these health-related domains. Similar findings have been noted in recent research, where weak or non-significant correlations between substance use and health behaviors were reported, emphasizing that the influence of substance use on well-being may be mediated by other psychosocial or contextual factors (Mukaka & Ismail, 2022; Papageorgiou, 2022).

Correlation Results on Substance Use, Body Image and Lifestyle Across all Respondents

Overall, this section presents the correlation results between substance use (alcohol use, drug use, and overall substance use) and the domains of body image and lifestyle (nutrition, physical activity, and general lifestyle) among respondents. The analysis was conducted using Pearson's rho and Spearman's rho correlation tests, depending on the distribution of the data. The purpose of this analysis was to

determine whether substance use behaviors are significantly associated with respondents' perceptions of their body image and their engagement in health-related lifestyle practices.

Understanding these relationships is important because existing literature highlights that substance use can negatively influence lifestyle patterns, including eating behaviors, physical activity, and psychological well-being, which in turn may affect body image (Dye, 2020; Sharma & Sharma, 2021). However, previous studies have also noted inconsistencies, as the impact of substance use on body image and lifestyle varies across gender, age, and sexual identity (Ransing et al., 2020; Rodríguez-Cano et al., 2022). By exploring these correlations within the present study's population, the analysis provides further insight into whether substance use has a direct, measurable relationship with health-related behaviors and self-perception, or whether other mediating factors play a more dominant role.

Table 55

Overall Correlation among Substance Use, Body Image and Lifestyle

	Body Image			**Nutrition**			**Physical Activity**			**Lifestyle**		
Variable	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI	Pearson R	P	VI
Alcohol Use	-.126	.001	NS	-.010	.792	NS	.116	.002	NS	.067	.080	NS
Drug Use	-.105	.006	NS	-.069	.070	NS	-.011	.770	NS	-.047	.220	NS
Substance Use	-.140	.000	NS	-.030	.437	NS	.097	.011	NS	.043	.257	NS

Legend: NS = Not Significant, S = Significant, VI = Verbal Interpretation, P = Sig

The following subsections detail the correlation results for alcohol use, drug use, and substance use in relation to body image, nutrition, physical activity, and lifestyle among the different groups of respondents.

Overall Alcohol Use with Body Image and Lifestyle

Alcohol use is weakly and negatively correlated with body image (r = -.126, p = .001). This indicates a significant relationship, suggesting that higher alcohol consumption is associated with lower body image satisfaction. Therefore, the null hypothesis that alcohol use does not correlate with body image is rejected. This aligns with the findings of Mesman et al. (2021), who reported that alcohol use is linked to body dissatisfaction and unhealthy weight-related behaviors among young adults.

Alcohol use does not have a significant relationship with nutrition (r = -.010, p = .792). This implies that alcohol consumption does not significantly influence nutritional practices, and the null hypothesis is not rejected. Testa and Cleveland (2020) noted that while chronic alcohol use can impact nutrition, occasional or moderate drinking may not show measurable effects on dietary practices.

Alcohol use is weakly positively correlated with physical activity (r = .116, p = .002), indicating a significant relationship. Individuals who consume alcohol may also participate in social or recreational physical activities. Therefore, the null hypothesis is rejected. Barry et al. (2021) reported similar patterns, where moderate drinking occurs alongside recreational or social exercise among young adults.

Alcohol use does not have a significant relationship with lifestyle (r = .067, p = .080), suggesting that alcohol consumption does not significantly impact overall lifestyle practices. Hence, the null hypothesis is not rejected (Barry et al., 2021).

Overall Drug Use with Body Image and Lifestyle

Drug use is weakly and negatively correlated with body image (r = -.105, p = .006). This indicates a significant relationship, suggesting that higher drug use is associated with lower body image perception. Therefore, the null hypothesis is rejected. Fattore and Diana (2021) also emphasized that drug use is often linked to poor self-image and body dissatisfaction.

Drug use does not have a significant relationship with nutrition (r = -.069, p = .070), indicating that drug use does not significantly affect dietary behaviors in this sample, and the null hypothesis is not rejected. Carr and Schulte (2021) noted that while chronic drug use can impact nutrition, short-term or moderate use may not produce statistically significant differences.

Drug use does not have a significant relationship with physical activity (r = -.011, p = .770), suggesting that drug use does not significantly influence exercise habits. The null hypothesis is not rejected.

Drug use does not have a significant relationship with lifestyle (r = -.047, p = .220), indicating that overall lifestyle patterns are not significantly associated with drug use in this population. This null hypothesis is not rejected.

Overall Substance Use with Body Image and Lifestyle

Substance use, as a combined measure of alcohol and drug use, is weakly and negatively correlated with body image (r = -.140, p < .001). This indicates a significant relationship, suggesting that higher substance use is associated with lower body image satisfaction. Therefore, the null hypothesis is rejected (Arbour-Nicitopoulos et a; 2020).

Substance use does not significantly correlate with nutrition (r = -.030, p = .437). This indicates that substance use does not significantly influence nutritional practices, and the null hypothesis is not rejected.

Substance use is weakly and positively correlated with physical activity (r = .097, p = .011). This suggests a significant relationship, where individuals with higher substance use may also engage in physical activity in certain social or recreational contexts. Hence, the null hypothesis is rejected (Loxton et al, 2021).

Substance use does not significantly correlate with lifestyle (r = .043, p = .257). This implies that substance use does not significantly affect overall lifestyle practices, and the null hypothesis is not rejected.

Regression Analysis of the Predictors of Body Image Among Respondents

This section presents the regression analysis results of the predictors of body image among respondents. Research question six was meant to find out the mean significant influence in respondents' assessment of body image in relation to sexual identity. Regression was employed because there were six categories in sexual identity (lesbian, gay, bisexual, transgender, straight male, and straight female). Results on the regression statistics are presented in Table 56.

Table 56
Predictors of Body Image Among Lesbians

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	R-square	R-square change
1	(Constant)	2.746	.328		8.370	.000	.061	.061
	Depression	.027	.011	.246	2.357	.021		
			F (1,86) = 7.320	Sig .021	R = .246			

Legend: a. Sexual Identity = Lesbian, b. Dependent Variable: Body Image

The model yielded a significant relationship, F(1,86) = 7.320, p = .021, with an R^2 of .061, indicating that approximately 6.1% of the variance in body image can be explained by depression. The unstandardized coefficient (B = .027, SE = .011) shows that for every one-unit increase in depression score, body image increases by .027 points. The standardized coefficient (β = .246) further suggests a moderate positive effect of nutrition on body image. Thus, the regression equation generated from this analysis is Y = 2.746 + .027 (Depression).

This result suggests that depression significantly predicts body image among lesbian respondents, although the effect size is modest. Recent literature highlights the complex relationship between depressive symptoms and body image in sexual minority women, for instance, Mason et al. (2020) reported that lesbian and bisexual women often experience body image concerns linked to both mental health struggles and minority stressors. Interestingly, some studies indicate that body image dissatisfaction may exacerbate depressive symptoms, while others note that depressive symptoms can alter one's body perception, leading to heightened body surveillance or distorted evaluation (Pachankis et al., 2020; Brewster et al., 2021).

Moreover, research has shown that in lesbian populations, cultural differences in beauty standards may buffer some negative body image pressured but may also interact with depression when compounded by discrimination or internalized stigma (Jankowski et al., 2021). Depression's predictive role in body image outcomes suggests that interventions addressing mental health in sexual minority groups may also improve body satisfaction and resilience (Mason et al., 2020; Watson et al., 2022).

Table 57
Predictors of Body Image Among Gays

Model		**Unstandardized Coefficients** B	Std. Error	**Standardized Coefficients** Beta	t	Sig.	R-square	R-square change
1	(Constant)	3.196	.130		24.597	.000	.035	.035
	Anxiety	.041	.014	.186	2.816	.005		
			F(1,221)= 7.929	Sig .005	R = .186			

a. Sexual Identity = Gay, b. Dependent Variable: Body Image

The model was statistically significant, F(1,221) = 7.929, p = .005, with an R^2 of .035, indicating the significant predictor explained 3.5% of the variance on body image. Thus, the regression equation generated from this analysis is Y = 3.196 + .041 (Anxiety).

Anxiety emerged as the significant predictor to body image, suggesting that higher anxiety level is positively associated with improved body image perception.

This finding highlights the detrimental role of psychological distress in shaping self-perceptions. Previous studies indicate that anxiety exacerbates negative body evaluations, especially among gay men who may experience heightened body surveillance and comparison due to sociocultural pressures within both mainstream and LGBTQ+ communities (Linardon et al., 2020; Zegarra-Valdivia et al., 2022).

Overall, the findings underscore that anxiety shape body image among gay individuals. These results highlight the need for holistic interventions that address the psychological well-being to promote healthier body image within sexual minority men, considering the unique pressures they face from both societal and community standards.

Table 58

Predictors of Body Image Among Bisexuals

		Unstandardized Coefficients		Standardized Coefficients				
Model		B	Std. Error	Beta	t	Sig.		
1	(Constant)	4.697	.433		10.843	.000	.120	.120
	Depression	-.033	.013	.120.346	-2.445	.019		
			F(1,44)= 5.979	R=.346	Sig=.019			

Legend: a. Sexual Identity = Bisexual, b. Dependent Variable: Body Image

The results from regression analysis showed that depression significantly predicted body image among bisexual participants F(1,44) = 5.979, p = .019) , with an overall model correlation of R = .346. The results indicate that higher levels of depression were associated with lower body image scores (B = -.033, β = -0.346, t = -2.445, p = .019). The regression model accounted for approximately 12% of the variance in body image, indicating a moderate relationship between the two variables. Thus, the regression equation generated from this analysis is Y = 4.697 - .033 (Depression).

The model below was statistically significant, F(2, 150) = 13.554, p = .000, with a total R^2 of .153, indicating that the predictors collectively explained 15.3% of the variance in body image among straight males in this study.

Table 59

Predictors of Body Image Among Straight Males

		Unstandardized Coefficients		Standardized Coefficients				
Model		B	Std. Error	Beta	t	Sig.	R-square	R-square change
2	(Constant)	3.128	.165		18.909	.000		
	Anxiety	.072	.017	.319	4.244	.000	.104	.104

	Alcohol use	-.038	.013	-.222	-2.955	.004	.153	.049
			F(2,150) =13.554	Sig. = .000	R = .391			

a. Sexual Identity = Straight Male, b. Dependent Variable: Body Image

Among predictors, anxiety (B = .072, SE = .017, β = .319 p = .000) emerged as the strongest positive predictor of body image. Thus, the regression equation generated from this analysis is Y = 3.128 + .072 (Anxiety) - .038 (Alcohol Use). This suggests that higher anxiety levels were associated with changes in body image, possibly reflecting greater preoccupation with physical appearance and social comparison. Prior research shows that anxiety contributes to heightened body image dissatisfaction and appearance-related concerns, particularly among men, due to societal and cultural pressures around masculinity and body ideals (Linardon et al., 2020; Zegarra-Valdivia et al., 2022).

Alcohol use (B = -.038, SE = .13, β = -.222, p = .004) was negatively associated with body image, indicating that higher alcohol consumption predicts poorer body image outcomes. This supports studies showing that excessive alcohol use is often linked to maladaptive coping strategies, impaired self-perception, and increased risk of body dissatisfaction in men (Coulter et al., 2021; McBride et al., 2022).

Overall, the results emphasize that psychological factors like anxiety and substance use like alcohol interact in shaping body image among straight males. Interventions that integrate mental health support, substance use prevention, and nutritional guidance may therefore be effective in fostering positive body image and healthier lifestyle outcomes in this group.

Table 60

Predictors of Body Image Among Straight Females

		Unstandardized Coefficients		Standardized Coefficients				
	Model	B	Std. Error	Beta	t	Sig.	R-square	R-square change
1	(Constant)	2.274	.437		5.204	.000		
	Nutrition	.414	.131	.243	3.166	.002	.059	.059
			F (1, 160 10.024) =	Sig .002	R = .243			

Legend: a. Sexual Identity = Straight Female, b. Dependent Variable: Body Image

The model was significant, F(1, 160) = 10.024, p = .002, with an R^2 value of .059, indicating that nutrition explains 5.9% of the variance in body image among this group.

The regression coefficient for nutrition was positive and significant (B = .414, SE = .131, β = .243, p = .002), suggesting that healthier nutritional practices are associated with improved body image perceptions among straight females. Although the proportion of variance explained is modest, the findings reinforce that diet is a meaningful lifestyle factor influencing body satisfaction. Thus, the regression equation generated from this analysis is Y = 2.274 + .414 (Nutrition).

These results are consistent with previous studies highlighting the role of nutrition in promoting positive body image and reducing risks of body dissatisfaction. Research shows that women who adopt

balanced eating habits ten to report higher body appreciation and fewer concerns related to weight and shape (Linardon & Messer, 2020; Burnette et al., 2021). At the same time, societal and cultural pressures on women to conform to beauty standards often exacerbate body image concerns, but engagement in healthier nutrition may provide a buffer against these stressors (Pachankis et al., 2020; Pope et al., 2023).

Overall findings emphasize the need for body image interventions among women that integrate nutrition education, health-promoting eating practices, and body positivity approaches. Such strategies can help mitigate the combined effects of cultural expectations and dietary behaviors on body image outcomes for straight females. In this study there were no variables were entered into the regression equation among straight females. For transgender, regression was not performed due to sample size limitation.

Regression Analysis of the Predictors of Body Image Among Respondents (Overall)

The regression analysis was performed among the respondents of the study regardless of their gender identities. The results are presented in Table 37.

Table 61

Overall Predictors of Body Image Among Respondents

Model		Unstandardized Coefficients		Standardized Coefficients			R-square	R-square change
		B	Std. Error	Beta	t	Sig.		
2	(Constant)	3.343	.080		41.571	.000		
	Anxiety	.034	.008	.167	4.483	.000	.030	.030
	Alcohol use	-.018	.006	-.116	-3.106	.002	.044	.013
			F(2,689) = 15.785	Sig = .000	R = .209			

Legend: a. Dependent Variable: Body Image

The overall regression analysis examined the combined influence of anxiety and alcohol use on body image among respondents regardless of their sexual identities. The model was statistically significant, F(2, 689) = 15.785, p = .001, with a total R^2 value of .044, indicating that the predictors together explain only4.4% of the variance in body image. Thus, the regression equation generated from this analysis is Y = 3.343 + .034 (Anxiety) - .018 (Alcohol Use). This suggests that anxiety and alcohol use play a meaningful role in shaping body image perceptions across populations.

Among the independent variables, only two significantly predict the body image of the respondents of the study regardless of their gender identities.

Anxiety (B = .034, β = .167, p = .001) was positively associated, but given its psychological nature, this likely reflects a more complex relationship where heightened body awareness and body-related anxiety can influence perceptions. Previous studies indicate that anxiety exacerbates concerns about weight and appearance, which can reinforce body dissatisfaction if not addressed (Kaur et al., 2022; Schubert & Wenzel, 2021).

Alcohol use (B = 0.020, β = - .131, p < .001) was negatively related to body image, meaning higher alcohol consumption predicts poorer body image. This supports existing research linking substance use to

maladaptive coping strategies, disordered eating, and negative self-perceptions (Pope et al., 2023; Pisetsky et al., 2021).

Overall, these findings highlight that mental health in terms of depression and anxiety and substance use are significant determinants of body image across sexual identities. Interventions to improve body image should therefore adopt a holistic approach that integrates anxiety management and reduced alcohol use to promote a better body image among respondents across diverse populations and gender identities.

According to Field (2020), regression analysis requires an adequate sample size to avoid issues such as overfitting, unstable coefficients, and violations of statistical assumptions. A general guideline suggests at least 50 + 8k observations (where k is the number of predictors). For testing multiple correlations, or at least 10-15 cases of predictor variable (Green, 2020). With four predictors in the model, this would mean a minimum of approximately 60 participants per subgroup to ensure reliable estimates. Transgender (N = 20) groups fell short of these thresholds, their regression results could not be interpreted with confidence.

This limitation highlights an important consideration in research with sexual minority populations: smaller subgroup sizes often pose challenges for statistical modeling, particularly when studying marginalized groups such as bisexual and transgender individuals. As recent literature emphasizes, underrepresentation of these groups in quantitative research can lead to reduced statistical power and difficulty in capturing their unique lived experiences (Gato et al., 2020; McDermott et al., 2021). Future research should aim to recruit larger and more balanced samples across sexual identities to enable more robust regression analyses.

Regression Analysis of the Predictors of Lifestyle of Individuals Among Respondents

This section presents results of the influence in respondents' assessment on the lifestyle when grouped according to sexual identity. This research question was meant to find out the mean significant influence on respondents' assessment of lifestyle in relation to sexual identity.

Table 62

Predictors of Lifestyle Among Lesbians

		Unstandardized Coefficients		**Standardized Coefficients**				
Model		B	Std. Error	Beta	t	Sig.	R-square	R-square change
1	(Constant)	2.416	.187		12.903	.000		
	Depression	.023	.006	.361	3.584	.001	.130	.130
			F (1, 86) = 12.846	Sig .001	R = .361			

Legend: a. Sexual Identity = Lesbian, b. Dependent Variable: Lifestyle

Regression was employed because there were six categories in sexual identity (lesbian, gay, bisexual, transgender, straight male, and straight female). Results on the regression statistics are presented in Table 38.

The model yielded a significant relationship, $F(1, 86) = 12.846$, $p = .001$, with an R^2 value of .130, indicating that 13.0% of the variance in lifestyle can be explained by depression. The unstandardized

coefficient (B = .023) suggests that for every one-unit increase in depression, lifestyle scores increase by .023 points. The standardized coefficient (β = .361) indicates a moderate positive relationship, showing that depression significantly influences lifestyle outcomes in this group. Thus, the regression equation generated from this analysis is Y = 2.416 + .023 (Depression).

This finding implies that higher levels of depression are associated with notable lifestyle changes among lesbians. While depression is typically associated with negative health behaviors such as physical inactivity, poor dietary habits, and substance use (Quehl et al., 2022; Mason et al., 2021), it can also drive compensatory coping mechanisms, such as increased focus on health routines or social adjustments within lesbian communities (McDermott et al., 2021). The moderate effect size suggests that depression is a meaningful psychological determinant of lifestyle, more than what was observed in other sexual identity groups with smaller effects.

These results align with existing literature emphasizing the intersection of minority stress and lifestyle among sexual minority women. Lesbian individuals often face unique psychosocial stressors, including discrimination and internalized stigma, which increase vulnerability to depression and subsequently impact daily lifestyle behaviors (Gato et al., 2020; Fredriksen-Goldsen et al., 2021). The predictive power of depression in this subgroup highlights the importance of addressing mental health as a central component of promoting healthier lifestyle practices among lesbian populations.

Table 63

Predictors of Lifestyle Among Bisexuals

Model		Unstandardized Coefficients		Standardized Coefficients			R-square	R-square change
		B	Std. Error	Beta	t	Sig.		
2	(Constant)	3.113	.092		33.801	.000		
	Alcohol use	.037	.010	.450	3.609	.001	.189	.189
	Drug use	-.353	.116	-.380	-3.051	.004	.333	.144
			F (2, 43) = 10.731	Sig .000	R = .577			

Legend: a. Sexual Identity = Bisexual, b. Dependent Variable: Lifestyle

The model yielded a significant relationship, $F(2, 43) = 10.731$, $p < .001$, with an R^2 value of .333, indicating that 33.3% of the variance in lifestyle was explained by alcohol and drug use.

The result revealed that alcohol use positively predicted lifestyle (B = .037, β = .450, t = 3.609, p = .001), suggesting that higher alcohol consumption is associated with significant changes in lifestyle among bisexual individuals. In contrast, drug use negatively predicted lifestyle (B = -.353, β = -.380, t = -3.051, p = .004), indicating that increased drug use is linked to poorer lifestyle outcomes. The R^2 change values suggest that alcohol use accounted for 18.9% of the variance, while drug use explained an additional 14.4%, underscoring their combined impact on lifestyle behaviors. Thus, the regression equation generated from this analysis is Y = 3.113 + .037 (Alcohol Use) - .353 (Drug Use).

These findings are consistent with literature emphasizing that bisexual populations often report higher rates of substance use compared to heterosexual and other sexual minority groups (Goldbach et al.,

2021; Feinstein et al., 2020). Alcohol use may function as a coping mechanism for minority stress, social stigma, and identity-related pressures, temporarily reinforcing certain lifestyle patterns (Eisenberg et al., 2020). However, drug use is often associated with more adverse health and lifestyle consequences, such as disrupted routines, poor diet, and compromised physical and mental health (Mereish et al., 2021).

The dual findings reflect the complex relationship between substance use and lifestyle among bisexual individuals, who experience unique stressors related to both heterosexual and LGBTQ+ communities. This underscores the need for targeted interventions focusing on substance use reduction while promoting healthier lifestyle practices among the bisexual population (Boyd et al., 2021).

In Table 64, the model yielded a significant relationship, $F(2, 150) = 6.368$, $p = .002$, with an R^2, indicating that 7.8% of the variance in lifestyle was explained by predictors. The result showed that depression positively predicted lifestyle ($B = .014$, $\beta = .242$, $t = 3.503$, $p = .003$). Thus, the regression equation generated from this analysis is $Y = 2.758 + .014$ (Depression) - .058 (Drug Use). This suggest that higher levels of depressive symptoms were associated with noticeable changes in lifestyle among straight males. While counterintuitive, this could reflect behavioral shifts such as altered eating, physical activity, or coping strategies linked to mood disturbances

In contrast, drug use was a negative predictor of lifestyle ($B = -.058$, $\beta = -.184$, $t = -.232$, $p = .022$). This implies that increased drug use was significantly associated with poorer lifestyle outcomes, aligning with evidence that substance misuse disrupts health promoting behaviors and daily routines.

Table 64

Predictors of Lifestyle among Straight Males

		Unstandardized Coefficients		Standardized Coefficients				
Model		B	Std. Error	Beta	t	Sig.	R-square	R-square change
2	(Constant)	2.758	.138		19.960	.000		
	Depression	.014	.005	.242	3.053	.003	.045	.045
	Drug use	-.058	.025	-.184	-2.312	.022	.078	.033
			F(2, 150) = 6.368	Sig .002	R = .280			

Legend: a. Sexual Identity = Straight Male, b. Dependent Variable: Lifestyle

The findings are consistent with recent literature showing that depressive symptoms often co-occur with lifestyle disruptions, including irregular diet and sleep patterns, among men (Bantjes et al., 2020; Pennix et al., 2021). Additionally, drug use has been strongly linked to declines in health behaviors and increased risk of chronic health issues (Volkow et al., 2021). Together, these predictors highlight dual challenge straight males may face, where mental health concerns and substance use play a role in shaping lifestyle quality.

Table 65

Predictors of Lifestyle Among Straight Females

	Unstandardized	**Standardized**		
Model	**Coefficients**	**Coefficients**	t	Sig.

		B	Std. Error	Beta			R-square	R-square change
1	(Constant)	2.638	.111		23.858	.000		
	Depression	.011	.003	.244	3.185	.002	.060	.060
			F(1, 160) = 10.143	Sig .002	R = .244			

Legend:a. Sexual Identity = Straight Female, b. Dependent Variable: Lifestyle

The regression analysis revealed a significant model, F(1, 160) = 10.143, p = .002, with an R^2 pf .060, indicating that 6.0% of the variance in lifestyle among straight female respondents can be explained by depression. The Unstandardized coefficient (B = .011, SE =.003) suggests that for every one unit increase in depression score, lifestyle increases by .011 points. The standardized coefficient (β = .244) reflects a modest but meaningful positive effect of depression on lifestyle. Thus, regression equation is expressed as Y = 2.638 + .011 (Depression).

This finding indicates the higher depressive symptoms were significantly associated with changes in lifestyle among straight females. While counterintuitive at first glance, this result is consistent with literature suggesting that depressive symptoms may influence health behaviors such as increased attention to diet or structured daily routines, even as overall well-being is compromised (Bantjes et al., 2020; Pennix et al., 2021). Depression remains a critical determinant of lifestyle behaviors, particularly among women, where sociocultural pressures and gendered expectations intersect with mental health outcomes (WHO, 2022).

Regression Analysis of the Predictors of Lifestyle Among Respondents (Overall)

This regression analysis was performed among the respondents of the study regardless of their sexual identity. The results are presented in Table 42.

The regression analysis was conducted to determine whether depression significantly predicts lifestyle among the respondents. Results indicate that depression is a significant predictor of lifestyle, F(1, 690) = 19.964, p < .001. The model explains approximately 2.8% of the variance in lifestyle (R^2 = .028), with depression contributing positively to lifestyle behaviors (B = .008, β = .168, p < .001). This suggests that higher levels of reported depression are associated with changes in lifestyle practices among the respondents. Although the explained variance is relatively small, the significant positive association highlights that depression has a measurable impact on lifestyle, which may reflect adaptive or maladaptive coping behaviors. Prior studies have documented similar findings, wherein depressive symptoms influenced health-related factors, such as sleep, physical activity, and substance use (Bueno-Notivol et al., 2021; O'Connor et al., 2021).

Table 66

Overall Predictors of Lifestyle Among Respondents

	Unstandardized Coefficients		Standardized Coefficients				
Model	B	Std. Error	Beta	t	Sig.	R-square	R-square change

1	(Constant)	2.867	.057		50.277	.000		
	Depression	.008	.002	.168	4.468	.000	0.28	.028
			F(1, 690) = 19.964	Sig .000	R = .168			

Legend: a. Dependent Variable: Lifestyle

In particular, during the COVID-19 pandemic, lifestyle behaviors were shown to be significantly altered by depression, with individuals reporting either reduced engagement in healthy activities or reliance on maladaptive coping strategies (Fancourt et al., 2021; Kim et al., 2022).

These findings suggest that addressing depression is crucial in promoting healthier lifestyle outcomes. As emphasized in recent literature, literature, lifestyle modification interventions that integrate mental health support are more effective in fostering sustainable health behaviors, particularly in population's vulnerable psychological distress (Paniagua et al., 2022; Li et al., 2023).

For the transgender group (N = 20), the regression analysis did not yield a significant model, indicating that none of the psychological or behavioral predictors (depression, anxiety alcohol use, or drug use) significantly explained variance in lifestyle. This result may be attributed to the limited sample size, which reduced statistical power and prevented reliable detection of effects. Previous studies have emphasized that transgender populations often experience distinct lifestyle challenges, including higher rates of stress, discrimination, and social marginalization, which influence health behaviors but may not be easily captured in small-scale analyses (Restar, 2020; Hendricks & Testa, 2021). Thus, while the current findings do not establish significant predictors of lifestyle, they highlight the importance of larger, more inclusive samples to fully understand lifestyle determinants in transgender individuals.

Regression Analysis of the Predictors of Nutrition of Individuals Among Respondents

This section presents results of the influence in respondents' assessment on the nutrition when grouped according to sexual identity.

This research question was meant to find out the mean significant influence on respondents' assessment of nutrition in relation to sexual identity. Regression was employed because there were six categories in sexual identity (lesbian, gay, bisexual, transgender, straight male, and straight female). Results on the regression statistics are presented in Table 43.

Table 67

Predictors of Nutrition Among Lesbians

		Unstandardized Coefficients		Standardized Coefficients				
Model		B	Std. Error	Beta	t	Sig.	R-square	R-square change
1	(Constant)	2.466	.243		10.144	.000		
	Depression	.031	.008	.370	3.691	.000	.137	.137
			F (1, 86) = 13.621	Sig .000	R = .370			

Legend: a. Sexual Identity = Lesbian b. Dependent Variable: Nutrition

The results revealed a significant model, $F(1, 86) = 13.621$, $p < .001$, with an R^2 of .137, indicating that 13.7% of the variance in nutrition can be explained by depression. The unstandardized coefficient shows that for every one-unit increase in depression, nutrition increases by .031 units, holding other factors constant. The standardized beta value ($\beta = .370$) further indicates a moderate positive effect of depression on nutrition. Thus, regression equation is expressed as $Y = 2.466 + .031$ (Depression).

This finding suggests that among lesbians, higher levels of depression are associated with changes in nutritional lifestyle. While counterintuitive at first glance, existing studies have shown that depressive symptoms can influence eating behaviors in complex ways, including both unhealthy patterns such as emotional eating and irregular food intake, and compensatory behaviors where individuals attempt to regulate mood through food choices (Mason et al., 2021; Poudel & Subedi, 2020). Moreover, sexual minority women may face unique stressors related to stigma and discrimination, which in turn can affect their health behaviors, including nutrition (Simons et al., 2021).

Overall, the results emphasize the interconnectedness of mental health and lifestyle factors in lesbian populations. The significant role of depression in predicting nutrition underscores the need for integrated interventions that simultaneously address psychological well-being and healthy dietary practices, especially for marginalized sexual identity groups who may experience compounded stressors.

In Table 68, the model was found to be significant, $F(1, 151) = 4.385$, $p = .038$, with an R^2 of .028, suggesting that 2.8% of the variance in nutrition can be explained by depression. The unstandardized coefficient ($B = .011$) indicates that for every one-unit increase in depression, nutrition increases by .011 units. Although the effect is statistically significant, the standardized beta ($\beta = .168$) suggests a small effect size. Thus, regression equation is expressed as $Y = 3.038 + .011$ (Depression).

Table 68

Predictors of Nutrition Among Straight Males

		Unstandardized Coefficients		Standardized Coefficients				
Model		B	Std. Error	Beta	t	Sig.	R-square	R-square change
1	(Constant)	3.038	.157		19.305	.000		
	Depression	.011	.005	.168	2.094	.038	.028	.028
			F (1, 151) = 4.385	Sig .038	R = .168			

Legend: a. Sexual Identity = Straight Male, b. Dependent Variable: Nutrition

The finding implies that depression has a modest yet meaningful influence on nutritional practices among straight males. Previous studies have documented that depression can disrupt normal eating patterns, leading to either increased consumption of unhealthy foods or neglect of balanced meals (Quehl et al., 2022; o'Niel et al., 2020). Interestingly, the positive relationship found here may reflect compensatory eating behaviors, where individuals attempt to manage depressive symptoms through food intake (Mason et al., 2021). However, the low explained variance (2.8%) suggests that other factors, such as stress, physical activity, or social determinants of health, likely play a stronger role in shaping nutrition among straight males (Richardson et al., 2020).

Overall, while depression significantly predicts nutrition in this group, the relatively weak effect highlights the complexity of the relationship between mental health and lifestyle behaviors. This underscores the importance of designing holistic interventions that incorporate both psychological support and health promotion strategies for men.

Table 69

Predictors of Nutrition Among Straight Females

		Unstandardized Coefficients		Standardized Coefficients				
Model		B	Std. Error	Beta	t	Sig.	R-square	R-square change
1	(Constant)	3.031	.129		23.538	.000		
	Depression	.009	.004	.167	2.143	.034	0.28	0.28
			F (1, 160) = 4.593	Sig .034	R = .167			

Legend: a. Sexual Identity = Straight Female, b. Dependent Variable: Nutrition

The model was statistically significant, $F(1, 160) = 4.593$, $p = .034$, with an R^2 of .028, indicating that 2.8% of the variance in nutrition can be explained by depression. The unstandardized coefficient (B = .009) suggests that for every one-unit increase in depression, nutrition increases by .009 units, while the standardized beta (β = .167) indicates a small but positive effect size. Thus, regression equation is expressed as Y = 3.031 + .009 (Depression).

This result implies that higher depression scores among straight females are associated with changes in their nutritional lifestyle. While the effect is modest, it highlights a connection between psychological well-being and eating behaviors. Previous studies have shown that depression can alter dietary patterns, with women often reporting emotional eating, irregular meal consumption, or increased intake of comfort foods in response to psychological distress (Quehl et al., 2022; Mason et al., 2021). The positive association found here could reflect attempts to regulate mood through food choices, even if not always health-promoting (Paans et al., 2020).

Overall, the findings underscore the importance of considering mental health in understanding nutritional behaviors among straight females. While depression accounts for only a small proportion of the variance, it remains a significant predictor, pointing to the need for interventions that integrate dietary guidance with mental health support for women facing psychological distress.

Regression Analysis of the Predictors of Nutrition Among Respondents (Overall)

This section presents results of the influence in respondents' assessment on the lifestyle when grouped according to sexual identity.

This research question was meant to find out the mean significant influence on respondents' assessment of lifestyle in relation to sexual identity. Regression was employed because there were six categories in sexual identity (lesbian, gay, bisexual, transgender, straight male, and straight female). Results on the regression statistics are presented in Table 70.

Regression analysis was performed to examine whether depression predicts nutrition across all respondents, regardless of sexual identity. The overall model was significant, $F(1, 690) = 13.\ 061$, $p <$

.001, with an R^2 of .019, indicating that 1.9% of the variance in nutrition can be explained by depression. The unstandardized coefficient (B = .008) suggests that for every one-unit increase in depression, nutrition increases by .008 units. Although the effect size is relatively small, the standardized beta (β = .136) confirms that depression has a significant positive influence on nutrition.

Table 70

Overall Predictors of Nutrition among Respondents

		Unstandardized Coefficients		**Standardized Coefficients**				
Model		B	Std. Error	Beta	t	Sig.	R-square	R-square change
1	(Constant)	3.150	.066		47.666	.000		
	Depression	.008	.002	.136	3.614	.000	.019	.019
			F (1, 690) =13. 061	Sig .000	R = .136			

a. Dependent Variable: Nutrition

These finding highlights that, across the entire sample, higher levels of depression were associated with changes in nutritional behaviors. Consistent with prior research, depressive symptoms are known to influence eating patterns, often through emotional eating, increased consumption of energy-dense foods, or irregular meal timing (Mason et al., 2021; Paans et al., 2020). While the explained variance is modest, the significant result underscores the role of mental health in shaping lifestyle choices, including nutrition, across diverse sexual identities.

It is important to note that no variables were entered into the regression equation for the subgroups of gay, bisexual, and transgender respondents. This indicates that depression did not meet the statistical entry criteria for predicting nutrition in these specific groups. The absence of significant predictors in these subgroups may be attributed to smaller sample sizes and unique stressors that interact with lifestyle behaviors in more complex ways (Gato et al., 2020; McDermott et al., 2021). On the other hands, regression models for lesbians, straight males, and straight females demonstrated significant associations between depression and nutrition, albeit with varying effect sizes.

Overall, the results emphasize that depression exerts an influence on nutritional behaviors in the total population and certain subgroups, but its predictive power is limited. This suggests that other factors such as stress, social support, cultural norms, and socioeconomic conditions may play stronger roles in determining nutritional practices (Quehl et al., 2022). Future studies should therefore adopt more comprehensive models that incorporate both psychological and social determinants to better explain variations in nutrition among individuals of diverse sexual identities.

Regression analysis for transgender respondents (N = 20) also failed to establish significant predictors for nutrition. The non-significant outcome may again be due to the small sample size, limiting the model's explanatory capacity. Literature suggests that transgender individuals face unique barriers in maintaining nutritional health, such as food insecurity, body image pressures during medical transition, and reduced access to supportive healthcare services (Mason et al., 2021; Watson et al., 2022). These contextual factors may influence nutrition in ways not captured by the predictors tested in the model, underscoring the need for future research with larger transgender samples to validate these influences.

Predictors of Physical Activity of Individuals Among Respondents

This section presents results of the influence in respondents' assessment on the lifestyle when grouped according to sexual identity. Research question seven was meant to find out the mean significant influence on respondents' assessment of lifestyle in relation to sexual identity. Regression was employed because there were six categories in sexual identity (lesbian, gay, bisexual, transgender, straight male, and straight female).

In Table 71, the regression analysis produced a significant model, $F(1, 86) = 4.486$, $p = .037$, with an R^2 of .050, indicating that approximately 5.0% of the variance in physical activity among lesbian respondents can be explained by depression. The unstandardized coefficient (B = .015, SE = .007) reveals that for every one-unit increase in depression score, physical activity increases by .015 points. The standardized coefficient (β = .223) suggests a small to moderate positive effect of depression on physical activity. Accordingly, the regression equation is expressed as Y = 2.365 + .015 (Depression).

Table 71

Predictors of Physical Activity among Lesbians

		Unstandardized Coefficients		Standardized Coefficients				
Model		B	Std. Error	Beta	t	Sig.	R-square	R-square change
1	(Constant)	2.365	.210		11.263	.000		
	Depression	.015	.007	.223	2.118	.037	.050	.050
			F(1, 86) = 4.486	Sig .037	R = .223			

Legend: a. Sexual Identity = Lesbian, b. Dependent Variable: Physical Activity

This result suggests that depressive symptoms, though generally associated with reduced motivation for exercise, may have a nuanced relationship with physical activity among lesbian respondents. The finding implies that some individuals may engage in physical activity as a coping mechanism to manage or alleviate symptoms of depression, consistent with evidence that exercise can provide mood regulation and psychological relief (Firth et al., 2020; Schuch et al., 2022). However, the modest variance explained indicates that other psychosocial and environmental factors, such as minority stress, stigma, and access to supportive spaces, may also play a substantial role in shaping physical activity patterns in this group (Lindsay Smith et al., 2020).

In Table 72, the regression analysis showed a statistically significant model, $F(1, 221) = 4.075$, $p = .045$, with an R^2 of .018, suggesting that 1.8% of the variance in physical activity among gay respondents can be explained by alcohol use. The unstandardized coefficient (B = .012, SE = .006) indicates that for every one-unit increase in alcohol use, physical activity increases by .012 points. The standardized coefficient (β = .135) points to a small but positive effect of alcohol use on physical activity. The regression equation derived from the analysis is Y = 2.806 .012 (Alcohol Use).

Table 72

Predictors of Physical Activity among Gays

Model		Unstandardized Coefficients		Standardized Coefficients				
		B	Std. Error	Beta	t	Sig.	R-square	R-square change
1	(Constant)	2.806	.054		52.247	.000		
	Alcohol use	.012	.006	.135	2.019	.045	.018	.018
			F(1,221) = 4.075	Sig .045	R = .135			

Legend: a. Sexual Identity = Gay, b. Dependent Variable: Physical Activity

These findings suggest that higher levels of alcohol use are modestly associated with increased physical activity among gay individuals. While alcohol consumption is often linked to negative health outcomes, research indicates that social drinking may also be embedded in community and recreational settings that promote physical engagement (Coulter et al., 2020). The positive link could reflect social contexts in which alcohol use and physical activity co-occur, such as parties, sporting events, or fitness-related gatherings within LGBTQ+ spaces. However, given the low R^2, the variance explained is minimal, underscoring that other psychosocial and environmental factors play a more substantial role in predicting physical levels (Mao et al., 2021; WHO, 2022).

The regression model in Table 73 for bisexual respondents yielded a statistically significant result, $F(2, 43) = 8.787$, $p = .001$, with an R^2 of .257, indicating that 25.7% of the variance in physical activity can be explained by alcohol use and drug use combined.

Table 73

Predictors of Physical Activity among Bisexuals

Model		Unstandardized Coefficients		Standardized Coefficients				
		B	Std. Error	Beta	t	Sig.	R-square	R-square change
2	(Constant)	2.807	.139		20.140	.000		
	Alcohol use	.052	.015	.436	3.393	.001	.179	.179
	Drug use	-.456	.175	-.334	-2.600	.013	.257	.112
			F(2,43) = 8.787	Sig .001	R = .539			

Legend: a. Sexual Identity = Bisexual, b. Dependent Variable: Physical Activity

Among the predictors, alcohol use was found to have a significant positive effect ($B = .052$, $SE = .015$, ($\beta = .436$, $p = .001$), suggesting that for every one-unit increase in alcohol use, physical activity increases by .052 points. In contrast, drug use demonstrated a significant negative relationship ($B = -.456$, $SE = .175$, $\beta = -.334$, $p = .013$), implying that higher levels of drug use are associated with lower physical

activity. The regression equation derived from the analysis is Y – 2.807 + .052 (Alcohol use) - .456 (Drug use).

These findings suggest a dual influence of substance use on physical activity among bisexual individuals. Alcohol consumption may serve as a social facilitator that encourages participation in physically engaging activities, such as sports or community events, where drinking may be normalized (Coulter at al., 2020). However, the negative association with drug use highlights its detrimental impact on health behaviors, as substance misuse often impairs motivation, energy, and capacity for sustained physical engagement (Schuch et al., 2022). This mixed pattern underscored the complexity of lifestyle behaviors among bisexual populations, where both social contexts and risky health behaviors shape physical activity patterns (Boyd et al., 20201).

Table 74

Predictors of Physical Activity among Straight Males

		Unstandardized Coefficients		Standardized Coefficients				
Model		B	Std. Error	Beta	t	Sig.	R-square	R-square change
2	(Constant)	2.495	.168		14.888	.000		
	Depression	.016	.005	.227	2.856	.005	.039	.039
	Drug use	-.072	.030	-.188	-2.360	.020	.073	.034
			F(2, 150) = 5.941	Sig .003	R = .271			

Legend: Sexual Identity = Straight Male, b. Dependent variable: Physical Activity

The regression model for straight male respondents yielded a statistically significant result, F(2, 150) = 5.941, p = .003, with and R^2 of .073, indicating that 7.3% of the variance in physical activity can be explained by depression and drug use. Specifically, depression showed a significant positive effect (B = .016, SE = .005, β = .227, p = - .005), suggesting that higher depression scores are associated with increased engagement in physical activity. On the other hand, drug use had a significant negative effect (B = -.072, SE = .030, β = -.188, p = .020), indicating that higher drug use predicts reduced levels of physical activity. The regression equation derived from the analysis is Y = 2.495 + .016 (Depression - .071 (Drug use).

This dual relationship highlights contrasting influences on physical activity among straight males. Depression appears to act as a motivator for physical activity, possibly as a coping mechanism to alleviate psychological distress, as physical activity is often linked to reductions in depressive symptoms (Pizzagalli & Etkin, 2021; Kandola et al., 2020). Conversely, drug use negatively impacts physical activity, consistent with evidence that substance misuse can impair physical health, reduce motivation, and interfere with maintaining healthy routines (Schuch et al., 2022). These findings suggest that while some individuals may turn to physical activity as a response to mental health challenges, substance use poses a significant barrier to maintaining active lifestyles.

Table 75

Predictors of Physical Activity among Straight Females

Model		Unstandardized Coefficients		Standardized Coefficients			R-square	R-square change
		B	Std. Error	Beta	t	Sig.		
2	(Constant)	2.365	.150		15.745	.000		
	Depression	.017	.005	.299	3.668	.000	.053	.053
	Anxiety	-.025	.011	-.186	-2.283	.024	.084	.030
			F(2, 159) = 7.246	Sig .001	R = .289			

Legend: a. Sexual Identity = Straight Female, b. Dependent Variable: Physical Activity

The regression analysis for straight female respondents showed a statistically significant model, $F(2, 159) = 7.246$, $p = .001$, with an R^2 of .084, indicating that 8.4% of the variance in physical activity is explained by depression and anxiety. The result revealed that depression was a significant positive predictor ($B = .017$, $SE = .005$, $\beta = -.186$, $p = .024$), indicating that higher levels of anxiety correspond to lower engagement in physical activity. The regression equation derived from the model is $Y = 2.365 + .017$ (Depression) $-.025$ (Anxiety).

This dual influence reflects complex behavioral responses among straight female respondents. On one hand, depression may drive individuals toward physical activity as a coping strategy, consistent with research showing that exercise is often used to reduce depressive symptoms (Kandola et al., 2020; Hu at al., 2020). On the other hand, anxiety appears to act as a deterrent to physical activity, as heightened anxiety can limit motivation, increase avoidance behaviors, and reduce participation in health-promoting routines. (McDowell at al., 2021; Meyer et al., 2022). These findings emphasize the need to consider both psychological facilitators and barriers when promoting active lifestyles among women.

Regression Analysis of the Predictors of Physical Activity Among Respondents (Overall)

This section presents results of the influence in respondents' assessment on physical activity when grouped according to sexual identity. Research question seven was meant to find out the mean significant influence on respondents' assessment of physical activity in relation to sexual identity. Regression was employed because there were six categories in sexual identity (lesbian, gay, bisexual, transgender, straight male, and straight female). Results on the regression statistics are presented in Table 52.

The regression analysis for overall respondents yielded a statistically significant model, $F(3, 688) = 11.673$, $p < .001$, with an R^2 of 0.48, indicating that approximately 4.8% of the variance in physical activity is explained by depression, alcohol use, and anxiety. Among the predictors, depression ($B = .011$, $SE = .002$, $\beta = .181$, $p < .001$) and alcohol use ($B = .012$, $SE = .004$, $\beta = .116$), $p = .002$) emerged as significant positive predictors, suggesting that higher levels of depression and alcohol use are associated with increased engagement in physical activity. In contrast, anxiety ($B = -.017$, $SE = .005$, $\beta = -.120$, $p = .002$) was a significant negative predictor, indicating that higher anxiety levels correspond with reduced physical activity participation. The regression equation derived from the model is $Y = 2.597 + .011$ (Depression + .012 (Alcohol use) $-.017$ (Anxiety).

Table 76
Overall Predictors of Physical Activity among Respondents

Model		Unstandardized Coefficients		Standardized Coefficients			R-square	R-square change
		B	Std. Error	Beta	t	Sig.		
3	(Constant)	2.597	.078		33.334	.000		
	Depression	.011	.002	.181	4.675	.000	.020	.020
	Alcohol use	.012	.004	.116	3.109	.002	.035	.015
	Anxiety	-.017	.005	-.120	-3.088	.002	.048	.013
			F(3,688) = 11.673	Sig .000	R = .220			

Legend: a. Dependent Variable: Physical Activity

These findings highlight the complex between mental health, substance use, and physical activity across sexual identities. Depression may encourage individuals to engage in physical activity as a coping mechanism for managing distress, consistent with prior evidence showing exercise's therapeutic role in alleviating depressive symptoms (Kandola et al., 2020; Hu et al., 2020). Similarly, alcohol consumption has been linked with social or recreational contexts that involve physical activities, particularly in younger adults (Fleming et al., 2021). However, anxiety appears to act as a barrier aligning with research indicating that heightened anxiety often leads to avoidance behaviors and reduced participation in structured exercise (McDowell et al., 2021; Meyer et al., 2022). Taken together, the results underscore the need for tailored interventions that address both the facilitators and inhibitors of physical activity, particularly considering the nuanced effects of psychological and behavioral factors across diverse sexual identities.

The regression analysis for transgender individuals (N = 20) similarly did not reach statistical significance for physical activity predictors. This finding suggests that variables such as depression, anxiety, alcohol use or drug use did not account for significant variance in physical activity within this subgroup. Prior studies indicate that transgender people often encounter barriers to engaging in physical activity, including discrimination in sports, lack of safe spaces, and body dysphoria that discourages participation in exercise environments (Jones et al., 2021; Lopez-Caniada et al., 2022). Therefore, the absence of significant predictors in this study is likely a result of both limited sample size and the complex socio-environmental factors shaping transgender individuals' participation in physical activity.

Differences in Body Image and Lifestyle by Moderator (Age)

This section presents the results of the difference in respondents' assessments of competitive advantage when grouped by age.

Differences in Body Image and Lifestyle Across Age Groups of Lesbian Respondents

Table 77 presents the result of the Kruskal-Wallis H-test is used to determine whether there are significant differences in body image, nutrition, physical activity, and lifestyle across the three groups (18-25, 26-29, and 30-35) among lesbian respondents.

The test in Table 77 shows no significant difference between the three groups of lesbian respondents in terms of body image, H(2) = 2.010, p = .366, two-tailed at a 95% confidence interval. It could be seen in

the descriptive table that those aged 30-35 (Mean Rank = 52.12) scored slightly higher compared to those aged 18-25 (Mean Rank = 43.30) and 26-29 (Mean Rank = 40.71).

Table 77

Mean Differences on Body Image Across Age Groups among Lesbians

Variables	Age group	N	Mean Rank	H-test	df	Sig.	Interpretation
Body Image	18-25 (Emerging Adulthood)	54	43.30	2.010	2	.366	Not Significant
	26-29 (Transition to established adulthood)	17	40.71				
	30-35 (Young adulthood)	17	52.12				
	Total	88					
Nutrition	18-25 (Emerging Adulthood)	54	43.29	1.312	2	.519	Not Significant
	26-29 (Transition to established adulthood)	17	42.06				
	30-35 (Young adulthood)	17	50.79				
	Total	88					
Physical Activity	18-25 (Emerging Adulthood)	54	44.54	.674	2	.714	Not Significant
	26-29 (Transition to established adulthood)	17	40.85				
	30-35 (Young adulthood)	17	48.03				
	Total	88					
Lifestyle	18-25 (Emerging Adulthood)	54	42.98	1.922	2	.383	Not Significant
	26-29 (Transition to established adulthood)	17	41.68				
	30-35 (Young adulthood)	17	52.15				
	Total	88					

a. Sexual Identity = Lesbian

However, the differences were not statistically significant. Consequently, the null hypothesis in this study is accepted. This finding suggests that body image perception among lesbian respondents is relatively consistent across emerging adulthood, transition to established adulthood, and young adulthood. This result is supported by Tiggemann et al. (2022), who indicated that body image concerns remain relatively stable within the young adult age range, with more noticeable changes only emerging when comparing adolescents to older adults.

Nutrition. To test whether lesbian respondents differ in terms of nutrition across age groups, the Kruskal-Wallis H-test was also employed. The result showed no significant difference $H(2) = 1.312$, $p = .519$. Hence, the null hypothesis is accepted. This suggests that respondents from all three age groups share similar practices and perceptions of nutrition. Supporting this result, Al-Kandari et al. (2024) reported that age was not significantly associated with body image dissatisfaction or related health practices, further implying that factors such as cultural influences or sexual identity may have stronger roles than age in shaping nutrition behaviors.

Physical Activity. Physical activity was tested across the three age groups. The Kruskal-Wallis result was not significant $H(2) = .674$, $p = .714$. This means that there is no difference in levels of physical activity across lesbian respondents aged 18-35, and the null hypothesis is therefore accepted. This is consistent with the findings of Nagata et al. (2022), who highlighted that sexual minority status and environmental factors are often stronger determinants of physical activity participation than age differences within young adult populations.

Lifestyle. The Kruskal-Wallis H-test was used to determine whether lifestyle significantly differs across the three age groups. The analysis showed no significant difference $H(2) = 1.922$, $p = .383$. This indicates that lifestyle patterns among lesbian respondents are relatively uniform across emerging adulthood, transition to established adulthood, and young adulthood. Therefore, the null hypothesis is accepted. This aligns with Linardon et al. (2023), who argued that identity-related and sociocultural pressures exert a stronger influence on lifestyle choices among sexual minorities than age-based differences, especially within a narrow adult age span.

The overall result reveal that body image, nutrition, physical activity, and lifestyle of lesbian respondents do not significantly differ across age groups 18-35. This suggests that age, at least within this developmental period, is not a primary determinant of these constructs. Instead, shared sociocultural and identity-related experiences appear to exert a more influential role.

Differences in Body Image and Lifestyle Across Age Groups of Bisexual Respondents

Table 78 presents the result of the Kruskal-Wallis H-test is used to determine whether there are significant differences in body image, nutrition, physical activity, and lifestyle across the three groups (18-25, 26-29, and 30-35) among bisexual respondents.

The test shows no significant difference between the three groups of bisexual respondents in terms of body image, $H(2) = .788$, $p = .574$, two-tailed at a 95% confidence interval. It could be seen in the descriptive table that those aged 26-29 (Mean Rank = 26.55) scored slightly higher compared to those aged 18-25 (Mean Rank = 22.71) and 30-35 (Mean Rank = 21.25).

However, these variations were not statistically significant. Consequently, the null hypothesis in this study is accepted. This finding implies that bisexual respondents tend to have comparable levels of body image perception regardless of whether they are in emerging adulthood, transitioning to established adulthood, or young adulthood. Recent studies also point out that body image among sexual minorities is often shaped

more by sociocultural expectations and sexual identity-related stressors than by chronological age (Linardon et al., 2023; Tiggemann et al., 2022).

Table 78

Mean Differences on Body Image Across Age Groups among Bisexual

Variables	Age group	N	Mean Rank	H-test	df	sig	Interpretation
Body Image	18-25 (Emerging Adulthood)	31	22.71	.788	2	.674	Not Significant
	26-29 (Transition to established adulthood)	11	26.55				
	30-35 (Young adulthood)	4	21.25				
	Total	46					
Nutrition	18-25 (Emerging Adulthood)	31	21.18	3.245	2	.197	Not Significant
	26-29 (Transition to established adulthood)	11	29.59				
	30-35 (Young adulthood)	4	24.75				
	Total	46					
Physical Activity	18-25 (Emerging Adulthood)	31	23.79	.527	2	.786	Not Significant
	26-29 (Transition to established adulthood)	11	21.45				
	30-35 (Young adulthood)	4	26.88				
	Total	46					
Lifestyle	18-25 (Emerging Adulthood)	31	22.61	.421	2	.810	Not Significant
	26-29 (Transition to established adulthood)	11	25.18				
	30-35 (Young adulthood)	4	25.75				
	Total	46					

a. Sexual Identity = Bisexual

Nutrition. To test whether bisexual respondents differ in terms of nutrition across age groups, the Kruskal-Wallis H-test was also employed. The result showed on significant difference, H(2) = 3. 245, p =

.197. Hence, the null hypothesis is accepted. This suggests that respondents from all three age groups share similar practices and perceptions of nutrition. Supporting this, Al-Kandri et al. (2024) reported that age was not significantly associated with body image dissatisfaction or related health practices, further implying that factors such as cultural influences or sexual identity may have stronger roles than age in shaping nutrition behaviors.

Physical Activity. Physical activity was tested across the three age groups. The Kruskal-Wallis result was not significant, H(2) = .527, p = .786. This means that there is no difference in levels of physical activity across bisexual respondents aged 18-35, and the null hypothesis is therefore accepted. This is consistent with the findings of Nagata et al. (2022), who highlighted that sexual minority status and environmental factors are often stronger determinants of physical activity participation than age differences within young adult populations.

Lifestyle. The Kruskal-Wallis H-test was used to determine whether lifestyle significantly differs across the three age groups. The analysis showed no significant difference, H(2) = .421, p = .810. This indicates that lifestyle patterns among bisexual respondents are relatively uniform across emerging adulthood, transition to established adulthood, and young adulthood. Therefore, the null hypothesis is accepted. This aligns with Linardon et al. (2023), who argued that identity-related and sociocultural pressures exert a stronger influence on lifestyle choices among sexual minorities than age-based differences, especially within a narrow adult age span.

Overall, the results show that body image, nutrition, physical activity, and lifestyle among bisexual respondents do not significantly differ across the three age groups (18-25, 26-29, and 30-35). This suggests that, within early adulthood, age is not a strong differentiator of these domains. Instead, shared identity-related experiences and sociocultural influences appear to be more impactful in shaping the body image and lifestyle of bisexual individuals.

Differences in Body Image and Lifestyle Across Age Groups of Transgender Respondents

Table 79 presents the result of the Kruskal-Wallis H-test is used to determine whether there are significant differences in body image, nutrition, physical activity, and lifestyle across the three groups (18-25, 26-29, and 30-35) among transgender respondents.

The test shows no significant difference between the three age groups of transgender respondents in terms of body image, H(2) = 2.353, p = .308, two-tailed at a 95% confidence interval. It could be seen in the descriptive table that those aged 18-25 (Mean Rank = 13.00) scored slightly higher compared to those aged 26-29 (Mean Rank 11.67), and 30-35 (Mean Rank = 8.33).

Table 79

Mean Differences on Body Image Across Age Groups among Transgender

Variables	Age group	N	Mean Rank	H-test	df	sig	Interpretation
Body Image	18-25 (Emerging Adulthood)	5	13.00	2.353	2	.308	Not Significant
	26-29 (Transition to established adulthood)	6	11.67				

	30-35 (Young adulthood)	9	8.33				
	Total	20					
Nutrition	18-25 (Emerging Adulthood)	5	12.40	1.183	2	.554	Not Significant
	26-29 (Transition to established adulthood)	6	11.17				
	30-35 (Young adulthood)	9	9.00				
	Total	20					
Physical Activity	18-25 (Emerging Adulthood)	5	10.40	.488	2	.783	Not Significant
	26-29 (Transition to established adulthood)	6	11.83				
	30-35 (Young adulthood)	9	9.67				
	Total	20					
Lifestyle	18-25 (Emerging Adulthood)	5	11.60	.289	2	.866	Not Significant
	26-29 (Transition to established adulthood)	6	10.58				
	30-35 (Young adulthood)	9	9.83				
	Total	20					

a. Sexual Identity = Transgender

However, these variations were not statistically significant. Consequently, the null hypothesis in this study is accepted. This finding implies that transgender respondents tend to have comparable levels of body image perception regardless of whether they are in emerging adulthood, transitioning to established adulthood, or young adulthood. Recent evidence also shows that transgender individuals' body image concerns are shaped more by gender identity-related stressors, stigma, and social acceptance rather than chronological age (Jones et al., 2021; Veldhius et al., 2022).

Nutrition. A Kruskal-Wallis H-test was used to determine whether there were differences in nutrition across transgender respondents in different age groups. The test was not significant, $H(2) = 1.183$, $p = .554$, indicating that nutrition-related behaviors do not significantly differ by age among transgender individuals. Thus, the null hypothesis is accepted. This finding implies that dietary practices among transgender repondents are relatively stable across emerging to young adulthood. Supporting this result, Katz-Wise et al. (2021) emphasized that nutrition and eating behaviors in transgender populations are more strongly shaped by psychosocial stressors, stigma, and access to healthcare than by age. Moreover, research by Diemer et al. (2023) found that transgender individuals face similar challenges regarding food security and nutrition regardless of age, reinforcing the idea that structural and identity-related factors outweigh developmental stage differences.

Physical activity. The Kruskal-Wallis H-test was also applied to examine differences in physical activity among transgender respondents by age group. The result revealed no significant difference, H(2) = .488, p = .783. This suggests that transgender individuals across the three age categories angage in comparable levels of physical activity. The null hypothesis is accepted. This outcome aligns with the findings of Puckett et al. (2020), who reported that physical activity among transgender people is more closely associated with social support, access to safe exercise environments, and inclusivity of fitness spaces rather than age. Likewise, Jones et al. (2021) argued that minority stress and fear of discrimination in sports and exercise settings serve as stronger determinants of physical activity than age.

Lifestyle. Differences were assessed across the three age groups of transgender respondents. The Kruskal-Wallis analysis indicated no significant difference, H(2) = .289, p = .866, showing that lifestyle behaviors do not significantly vary by age. Thus, the null hypothesis is accepted. This finding suggests that lifestyle patterns among transgender individuals remain consistent across emerging adulthood, transition to established adulthood, and young adulthood. Supporting this, Tebbe and Moradi (2020) argued that lifestyle among transgender people is often shaped by systemic barriers, stigma, and community belonging rather than age differences. Additionally, Veldhius et al. (2022) stressed that lifestyle health disparities in transgender populations stem more from social determinants of health than from chronological age.

Overall, the results show that body image, nutrition, physical activity, and lifestyle among transgender respondents do not significantly differ across the three age groups (18-25, 26-29, 30-35). This suggests that, within early adulthood, age is not a strong differentiator of these domains. Instead, shared experiences of minority stress, identity-related challenges, and sociocultural factors appear to exert a greater influence on shaping the health and lifestyle outcomes of transgender individuals.

Differences in Body Image and Lifestyle Across Age Groups of Straight Male Respondents

Table 80 presents the result of the Kruskal-Wallis H-test is used to determine whether there are significant differences in body image, nutrition, physical activity, and lifestyle across the three groups (18-25, 26-29, and 30-35) among straight male respondents.

Table 80

Mean Differences on Body Image Across Age Groups among Straight Males

Variable	Age group	N	Mean Rank	H-test	df	sig	Interpretation
Body Image	18-25 (Emerging Adulthood)	119	81.84	8.611	2	.013	Significant
	26-29 (Transition to established adulthood)	21	68.98				
	30-35 (Young adulthood)	13	45.69				
	Total	153					
Nutrition	18-25 (Emerging Adulthood)	119	78.70	1.001	2	.606	Not Significant

	26-29 (Transition to established adulthood)	21	73.81				
	30-35 (Young adulthood)	13	66.62				
	Total	153					
Physical Activity	18-25 (Emerging Adulthood)	119	75.77	.960	2	.619	Not Significant
	26-29 (Transition to established adulthood)	21	85.71				
	30-35 (Young adulthood)	13	74.15				
	Total	153					
Lifestyle	18-25 (Emerging Adulthood)	119	76.66	.458	2	.795	Not Significant
	26-29 (Transition to established adulthood)	21	82.10				
	30-35 (Young adulthood)	13	71.88				
	Total	153					

a. Sexual Identity = Straight Male

The Kruskal-Wallis H-test was employed to assess differences in body image across straight male respondents in three age groups (18-25, 26-29, 30-35).

In Table 81, the result of the test revealed a statistically significant difference, H(2) = 8.611, p = .013, two-tailed at a 95% confidence interval. In table 80 respondents aged 18-25 (Mean Rank = 81,84) reported the highest body image scores, followed by those aged 26-29 (Mean Rank = 68.98) while those aged 30-35 (Mean Rank = 45.59) had the lowest.

Table 81

Kruskal-Wallis Test of Differences in Body Image Across Age Groups of Straight Male Respondents

	Null Hypothesis	Test	Sig.[a,b]	Decision
1	The distribution of Body Image is the same across categories of Age group.	Independent-Samples Kruskal-Wallis Test	.013	Reject the null hypothesis.

Legend: a. The significance level is .050., b. Asymptotic significance is displayed.

This suggests that body image perception among straight male respondents tends to decline those in emerging adulthood, may be more influenced by appearance-related ideals and peer expectations, while

older men may prioritize other aspects of self-concept, such as career and family responsibilities (Tiggemann et al., 2022; Frederick et al., 2022). Thus, the null hypothesis is rejected.

Pairwise Comparisons of Age Groups for Body Image (Straight Male Respondents)

Following the significant Kruskal-Wallis result for body image among straight male respondents, pairwise comparisons with Bonferroni correction were conducted to identify which age groups differed. Table 58 presents the result of Pairwise Comparisons.

The results indicated a significant difference in body image among straight males in young adulthood and emerging adulthood. The comparison of body image between young adulthood and the transition to established adulthood was not significant (p = .408), nor was the comparison between the transition to established adulthood and emerging adulthood (p = .659). This suggests that younger men may experience greater body image satisfaction, likely due to being more aligned with societal appearance ideals, whereas older men may experience a decline in body image evaluation as priorities shift toward career and family responsibilities (Tiggemann et al., 2022; Frederick et al., 2022). The significant difference in body image was primarily evident between the youngest and oldest respondents rather than across all three groups.

Table 82

Pairwise Comparisons of Age Group

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.[a]
Young Adulthood-Transition to Established adulthood	23.284	15.624	1.490	.136	.408
Young Adulthood-Emerging adulthood	36.144	12.932	2.795	.005	.016
Transition to Established adulthood-Emerging adulthood	12.860	10.479	1.227	.220	.659

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .050.

a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

These findings align with previous studies showing that body image among men tends to be most favorable during late adolescence and early adulthood, but gradually decreases as individuals age, particularly when comparing younger and older segments within early adulthood (McNeill & Firman, 2021; Tiggemann et al., 2022). Importantly, this reinforces the idea that chronological age within a narrow range can still exert an influence on self-perception, especially when coupled with shifting life roles and sociocultural pressures.

Overall, pairwise analysis confirms that straight male respondents aged 18-25 perceive their body image more positively compared to those aged 30-35, while the middle age group (26-29) does not significantly differ from either group. This highlights an age-related decline in body image perception across early adulthood, consistent with recent empirical literature.

Nutrition. The Kruskal-Wallis H-test was used to examine nutrition across age groups. The result showed no significant difference, H(2) = 1.001, p = .606. Respondents aged 18-25 (Mean Rank = 78.70) reported slightly higher values compared to those aged 26-29 (Mean Rank = 73.81) and 30-35 (Mean Rank = 66.62), but these differences were nkt statistically significant. Thus, the null hypothesis is accepted. This finding indicates that nutritional practices among straight male respondents are relatively consistent across the age span of early adulthood. According to Fong et al. (2021), men's dietary behaviors are strongly influenced by lifestyle demands, cultural norms, and socioeconomic context, which often exert a stronger effect than age-related differences within early adulthood.

Physical Activity. The Kruskal-Wallis analysis also revealed no significant difference among the three age groups, H(2) = .960, p = .619. The mean ranks suggest that respondents aged 26-29 (Mean Rank = 85.71) were slightly more physically active compared to those aged 18-25 (Mean Rank = 75.77) and 30-35 (Mean Rank = 74.15). However, these variations were not statistically significant. Consequently, the null hypothesis is retained. This result is consistent with previous findings showing that men's engagement in physical activity during early adulthood is largely influenced by environmental opportunities, peer influence, and perceived health benefits rather than chronological age (Romo-Perez et al., 2021; Nagata et al., 2022).

Lifestyle. Differences across age groups were examined. The Kruskal-Wallis H-test result was not significant, H(2) = .0458, p = .795. Respondents aged 26-29 (Mean Rank = 82.10) scored slightly higher compared to those aged 18-25 (Mean Rank = 76.66) and 30-35 (Mean Rank = 71.88*, yet these differences were not significant. Thus, the null hypothesis is accepted. This implies that lifestyle patterns among straight male respondents are relatively similar across early adulthood. Supporting this, Rosi et al. (2020) emphasized that men's lifestyle behaviors, such as diet, exercise, and leisure, are shaped by social expectations, work demands, and health awareness rather than age differences within the same developmental stage.

Overall, the findings reveal that body image significantly differ in straight males across the age group of 18-25, 26-29, and 30-35 while nutrition, physical activity, and lifestyle among straight male respondents do not significantly differ across the age groups or 18-25, 26-29, 30-35. This indicates that within early adulthood, age is not a strong differentiator in these domains. Instead, sociocultural influences, environmental factors, and gendered expectations appear to play a more prominent role in shaping the health-related behaviors of straight male individuals.

Differences in Body Image and Lifestyle Across Age Groups Among Straight Female Respondents

Table 83 presents the result of the Kruskal-Wallis H-test is used to determine whether there are significant differences in body image, nutrition, physical activity, and lifestyle across the three groups (18-25, 26-29, and 30-35) among straight female respondents.

The Kruskal-Wallis H-test was used to examine differences in body image among straight female respondents across the three groups (18-25, 26-29, and 30-35 years). The result was not significant, H(2) = 2.005, p = .367, indicating that body image perception does not significantly differ by age. Although respondents aged 26-29 (Mean Rank = 83. 37) and 18-25 (Mean Rank 82.87) scored slightly higher compared to those aged 30-35 (Mean Rank = 63.08), these variations were not statistically meaningful. Consequently, the null hypothesis is accepted.

Table 83

Mean Differences in Body Image Across Age Groups Among Straight Females

	Age group	N	Mean Rank	H-test	df	sig	Interpretation
Body Image	18-25 (Emerging Adulthood)	119	82.87	2.005	2	.367	Not Significant
	26-29 (Transition to established adulthood)	31	83.37				
	30-35 (Young adulthood)	12	63.08				
	Total	162					
Nutrition	18-25 (Emerging Adulthood)	119	77.87	2.701	2	.259	Not Significant
	26-29 (Transition to established adulthood)	31	91.24				
	30-35 (Young adulthood)	12	92.33				
	Total	162					
Physical Activity	18-25 (Emerging Adulthood)	119	82.10	.501	2	.779	Not Significant
	26-29 (Transition to established adulthood)	31	76.94				
	30-35 (Young adulthood)	12	87.33				
	Total	162					
Lifestyle	18-25 (Emerging Adulthood)	119	79.96	.593	2	.744	Not Significant
	26-29 (Transition to established adulthood)	31	84.27				
	30-35 (Young adulthood)	12	89.58				
	Total	162					

a. Sexual Identity = Straight Female

This finding suggests that straight females across early adulthood tend to maintain relatively similar body image perceptions, regardless of their life stage. Recent literature supports this, noting that body image concerns among women are shaped more by sociocultural expectations and media influence than by small age differences within early adulthood (Fardouly et al., 2020; Tiggemann et al., 2022).

Nutrition. The analysis of nutrition practices across the three age groups also yielded a non-significant result, H(2) = 2.701, p = .259. Respondents in the 30-35 group (Mean Rank = 77.87). However, these differences were not statistically significant, thereby retaining the null hypothesis. This indicates that straight females across emerging to young adulthood share similar nutritional practices. Supporting this finding, Al-Kandari et al. (2024) found that nutritional behaviors among young women were more strongly linked to cultural and lifestyle influences rather than narrow age differences.

Physical activity. The Kruskal-Wallis test showed no significant difference across age groups, H(2) = .501, p = .779. Participants aged 30-35 (Mean Rank = 87.33) reported slightly higher activity levels compared to those aged 18-25 (Mean Rank = 82.100 and 26-29 (Mean Rank = 76.94), but these differences were minimal. Hence, the null hypothesis is accepted. Consistent with Nagata et al. (2022), this result suggests that engagement in physical activity among women may be more affected by environmental and social factors, such as accessibility of facilities or peer support, rather than age.

Lifestyle. Differences across age groups were not significant, H(2) = .593, p = .744. Respondents in the 30-35 group (Mean Rank = 89.58) and 26-29 group (Mean Rank = 84.27) had slightly higher scores than those aged 18-25 (Mean Rank = 79.96), yet the variations were not statistically meaningful. This suggests that lifestyle patterns of straight female respondents are fairly consistent across early adulthood. Linardon et al. (20230) highlighted that sociocultural pressures and gendered expectations exert a stronger influence on lifestyle behaviors among women than chronological age within a narrow developmental span.

Overall, the results suggest that straight female respondents do not significantly differ in body image, nutrition, physical activity, and lifestyle across the age groups of 18-25, 26-29, and 30-35 years. This indicates that within early adulthood, shared social, cultural, and identity-related experiences appear to have a more substantial role in shaping these domains than age alone.

Proposed Lifestyle Modification Program

Project HARMONY: Healthy Approaches to Resilience, Mental Wellness, and Nutrition for You

Program Rationale

The findings revealed that while depression and anxiety are moderately present across all sexual identities, their direct correlation with lifestyle and body image was limited. However, vulnerable subgroups emerged: bisexuals and straight females reported higher depression levels, transgender respondents reflected moderate anxiety and risky alcohol use, and lesbians and straight males scored lower in body image satisfaction. Additionally, nutrition practices were mostly fair (except bisexuals who demonstrated healthier patterns), and physical activity was uniformly fair across all groups, pointing to widespread sedentary behavior.

In response, Project HARMONY is an inclusive and identity-sensitive lifestyle modification program designed to strengthen mental health, reduce substance use risks, promote positive body image, and enhance nutrition and physical activity. It emphasizes community involvement, inclusivity, and sustainable wellness practices across LGBT and heterosexual populations.

Goal

To strengthen mental health, reduce risks of substance use, promote positive body image, and enhance nutrition and physical activity through an inclusive, identity-sensitive wellness program for both LGBT and heterosexual individuals in the Second District of Batangas.

Specific Objectives

This study aims to provide comprehensive interventions addressing the multifaceted needs of individuals across diverse sexual identities. Specifically, it seeks to provide mental health support that reduces symptoms of depression and anxiety through psychoeducation, mindfulness activities, and peer support initiatives. It also aims to manage substance use by sustaining low-risk behaviors, promoting responsible alcohol consumption, and preventing the development of risky drinking patterns. Furthermore, the study endeavors to foster positive body image and self-acceptance by addressing stigma, challenging societal beauty standards, and encouraging inclusivity. In addition, it aims to improve nutrition practices through culturally relevant education, affordable meal planning, and practical cooking demonstrations that promote healthier eating habits. The study also seeks to increase engagement in physical activity by promoting group exercises, identity-inclusive sports, and home-based fitness routines. Moreover, it intends to ensure the identity-sensitive integration of interventions by tailoring activities to the unique

experiences of diverse sexual identities and by training facilitators in SOGIE (Sexual Orientation, Gender Identity, and Expression) awareness. Finally, it aims to establish sustainability mechanisms through peer-led wellness clubs and community partnerships to ensure that the benefits of the program extend beyond the implementation period.

Content

Mental health promotion can be achieved through various strategies such as teaching effective coping mechanisms, implementing stress management techniques, practicing mindfulness, and providing peer support groups. Efforts to raise awareness and control substance use may include alcohol education, motivational interviewing, and offering alternative coping strategies. To foster positive body image, initiatives like body positivity workshops, creative storytelling or photography, and individual counseling can be implemented. Nutrition can be enhanced through healthy eating seminars, meal planning guidance, cooking demonstrations, and the use of nutrition tracking tools. Physical activity promotion may involve engaging programs such as Zumba, yoga, circuit training, inclusive sports clubs, and home-based fitness challenges. Additionally, identity-sensitive integration is crucial, which can be addressed through SOGIE-awareness training for facilitators, development of subgroup-focused modules, and collaboration with local organizations to ensure inclusivity and responsiveness to diverse needs.

Program Strategies

Based on the findings of this study, the proposed lifestyle modification program is designed to employ multiple strategies to ensure comprehensive engagement and effectiveness among participants. The program integrates the following approaches:

Educational Approaches. To enhance knowledge and awareness, the program incorporates seminars, workshops, and awareness campaigns. These activities are designed to equip participants with the necessary skills and information to make informed decisions regarding their health, nutrition, physical activity, and overall lifestyle.

Supportive Engagement. Recognizing the importance of psychosocial support in behavior change, the program includes peer support circles, individual counseling, and mentoring sessions. These interventions aim to build resilience, reinforce positive behaviors, and provide continuous emotional and motivational support.

Experiential Learning. To facilitate practical application of learned concepts, the program offers hands-on activities such as cooking demonstrations, structured exercise sessions, and creative projects. Experiential learning allows participants to actively practice healthy behaviors, thereby improving retention and skill acquisition.

Community Involvement. To maximize reach and sustainability, the program collaborates with local LGBT organizations, schools, and health units. Such partnerships not only enhance program credibility but also foster a supportive community environment conducive to long-term behavior change.

Blended Learning. To increase accessibility and accommodate diverse participant needs, the program employs a blended learning approach. This combines face-to-face sessions with online modules, ensuring that participants can engage with program content flexibly and consistently.

Feedback Mechanisms. Continuous program improvement is ensured through systematic feedback strategies, including reflection sessions, surveys, and focus group discussions. These mechanisms allow for monitoring of participant progress, identification of challenges, and timely adjustment of program activities.

Overall, the proposed program adopts a multi-faceted strategy that combines knowledge dissemination, skill-building, psychosocial support, community engagement, and continuous evaluation. This approach is intended to facilitate sustainable lifestyle modifications among participants while addressing their unique needs and circumstances.

Program Implementation

Project HARMONY is designed to run for 12 weeks (3 months), providing participants with adequate time to build and internalize healthier lifestyle habits. Weekly workshops focus on mental health, body image, and nutrition, while bi-weekly activities highlight group fitness and peer support. The program is delivered through a blended mode, combining in-person sessions in Batangas with online platforms to accommodate diverse participant needs. It is open to both LGBT and heterosexual individuals, with activities designed for identity-specific groups as well as mixed interactions to foster inclusivity. Monitoring and evaluation are embedded throughout the program, starting with process monitoring to track attendance, participation, and activity delivery. Outcome evaluation uses pre-, mid-, and post-assessments to measure changes in mental health, substance use, body image, nutrition, and physical activity. Continuous feedback mechanisms gather suggestions from participants to refine activities, while sustainability tracking ensures that outcomes extend beyond the program through peer-led wellness clubs and partnerships with local organizations.

Proposed Lifestyle Modification Program Matrix: Project HARMONY

Objectives	Program Activities	Person(s)-In-Charge	Timeline	Expected outcomes
Strengthen Mental Health Support	- Weekly workshops on stress management, mindfulness, and coping skills - Peer support groups	Mental health professionals, peer facilitators	Weekly (12 weeks)	Reduced depression and anxiety; improved coping skills; stronger peer support
Promote Responsible Alcohol Use	- Alcohol awareness campaigns - Motivational interviewing sessions - Alternative coping strategies (fitness, arts, hobbies)	Counselors, peer mentors, fitness coaches	Bi-weekly (12 weeks)	Lower risk alcohol use, especially among transgender participants; healthier coping behaviors
Enhance Body Image	- Body positivity workshops - Counseling and self-reflection sessions - Creative activities (photography, storytelling)	Psychologists, counselors, and creative facilitators	Monthly workshops + ongoing counseling	Increased body satisfaction; reduced stigma; improved self-acceptance
Improve Nutrition Practices	- Nutrition seminars - Meal planning workshops - Cooking	Dietitians, Nutritionists, and Health Educators	Bi-weekly (12 weeks)	Healthier eating habits; improved nutrition knowledge; accessible and sustainable food

	demonstrations - Nutrition tracking			choices

5

Summary of Findings, Conclusion, and Recommendations

This final chapter presents the summary, conclusions and recommendations from the study, and a proposed program on mental health (depression and anxiety) and substance use (alcohol and drug use) and their influence on body image and lifestyle (nutrition and physical activity) across sexual identities.

Summary Findings

Based on the data gathered and analyzed, the following findings were established:

In mental health, depression was reported at a moderate level across all sexual identities, with bisexuals and heterosexual females showing the highest vulnerability. Meanwhile, anxiety was generally rated as mild among most participants; however, transgender respondents exhibited moderate levels of anxiety, indicating a greater susceptibility to mental distress compared to other groups.

Substance use and its subgroups among respondents, alcohol and drug use were generally within the low-risk category. However, transgender individuals exhibited risky levels of alcohol consumption, suggesting a higher vulnerability to substance related behaviors. Drug use remained consistently low across all sexual identity groups, reflecting minimal engagement in drug-related activities.

In body image, bisexual, gay, transgender individuals, and heterosexual females reported a good level of body image, indicating generally positive perceptions of their physical appearance. In contrast, lesbians and heterosexual males reflected only a fair level of body image, suggesting lower satisfaction within these groups.

In terms of lifestyle, bisexuals demonstrated good nutirtional practices, whereas all other groups exhibited only fair levels. Physical activity across all sexual identities was consistently rated as fair, pointing to limited exercise engagement and sedentary tendencies. Overall lifestyle practices were also fair, reflecting moderate adherence to healthy behaviors across all groups.

Correlation analysis revealed no strong or consistent relationships among mental health, substance use, body image, and lifestyle. However, some subgroup-level associations were observed, such as depression correlating with lifestyle among heterosexual males, depression correlating with physical activity among transgender individuals, and alcohol use negatively correlating with body image among heterosexual males.

Regression analysis further showed that mental health and substance use did not consistently predict body image and lifestyle outcomes across sexual identities. Although a few isolated subgroup patterns emerged, these were neither strong nor uniform, suggesting that broader social and cultural factors may play a more significant rile in influencing these relationships.

Conclusion

In conclusion, the findings of this study highlight varying experiences of mental health, substance use, body image, and lifestyle across sexual identities. Mental health concerns particularly depression and anxiety were evident among all groups, with bisexuals, females, and transgender individuals showing greater vulnerability, emphasizing the importance of inclusive and identity sensitive mental health interventions. Substance use was generally low-risk levels however, transgender individuals demonstrated risky patterns of alcohol consumption, indicating a need for targeted preventive measures within this subgroup.

Body image perceptions differed across sexual identities, as bisexuals, gays, transgender individuals and heterosexual females exhibited more positive body image, while lesbians and heterosexual males reflected low satisfaction. Lifestyle practices, including nutrition and physical activity, were mostly rated as fair, with bisexuals demonstrating comparatively healthier nutritional behaviors. Nonetheless, sedentary tendencies and limited physical activity persisted across all groups.

The statistical analyses revealed that mental health and substance use exerted limited and inconsistent effects on body image and lifestyle. The presence of isolated sub-group level associations suggests that these outcomes may be influenced by broader social, cultural, and environmental factors. These findings underscore the need for holistic health programs that address not only individual behaviors among diverse sexual groups.

Overall, the study concludes that while mental health and substance use are important considerations, they do not strongly or consistently determine body image and lifestyle across sexual identities. Instead, other social and cultural factors may play a greater role, highlighting the importance of developing inclusive and identity-sensitive interventions.

Recommendations

Based on the results of the study, several recommendations are proposed for various stakeholders.

Mental Health Practitioners and Counselors

Targeted interventions should be developed to address the moderate levels of depression and anxiety observed among bisexuals, straight females, and transgender individuals. Regular mental health screenings in schools, workplaces, and communities are encouraged, alongside stigma-reduction initiatives that normalize conversations on mental well-being.

Substance Use Programs and Health Agencies

Alcohol prevention and early intervention programs should be strengthened, particularly for transgender individuals who were found to exhibit risky drinking behaviors. While drug use was generally low, continuous awareness campaigns and monitoring are recommended to prevent future escalation. Local health workers may also be trained to conduct early detection and referral for individuals at risk of substance use.

Schools and Educational Institutions

Encouraged to integrate health education modules that emphasize positive body image, balanced nutrition, and active lifestyles. Wellness campaigns and school-based fitness programs should be promoted to address the fair levels of physical activity reported across groups. Guidance counselors may also facilitate workshops on coping skills, self-esteem, and resilience to support students of diverse sexual identities.

Local Government Units and Policymakers

Urged to establish LGBT-inclusive health policies to ensure equitable access to services and resources. Funding support for community-based programs that address mental health, body image, and lifestyle concerns should be prioritized. Collaboration with LGBT organizations will further ensure that interventions are culturally sensitive and reflective unique needs of each sexual identity group.

LGBT Organizations and Advocacy Groups

Strengthening peer-support networks and safe spaces is highly recommended to help individuals process challenges related to body image, mental health, and identity. Campaigns on body positivity and lifestyle improvement should be tailored to subgroups, such as lesbians and straight males, who reported fair levels of body satisfaction. Partnerships with health professionals can also enhance access to counseling and wellness programs.

Future Researchers

It is recommended that longitudinal studies be conducted to establish casual relationships between mental health, substance use, body image, and lifestyle. Qualitative approaches may also be pursued to gain deeper insights into the lived experiences of LGBT and heterosexual individuals. Furthermore, future research should explore contextual factors such as minority stress, social support, and cultural influences, which may better explain variations in mental health and lifestyle outcomes across different identities.

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APENDIX B

PROPOSED LIFESTYLE MODIFICATION PROGRAM

CENTER FOR GRADUATE STUDIES

ADVENTIST UNIVERSITY OF THE PHILIPPINES

TITLE OF THE STUDY: A PROPOSED PROGRAM ON MENTAL HEALTH AND SUBSTANCE USE: THEIR INFLUENCE ON BODY IMAGE AND LIFESTYLE ACROSS SEXUAL IDENTITIES
RESEARCHER: EDD JODI ARGUELLES-BEJER
TOTAL BUDGET: ₱ 38 750

Objectives	Activities	Estimated Cost (PHP)	Notes
Strengthen Mental Health Support	Weekly workshops on stress management, mindfulness, and coping skills	4, 800	12 sessions × 400/session (simpler materials & refreshments)
	Peer support groups	1, 800	12 sessions × 150/session (snacks & materials)
Promote Responsible Alcohol Use	Alcohol awareness campaigns	2, 500	Posters, leaflets, banners
	Motivational interviewing sessions	2, 400	6 sessions × 400/session (peer facilitators instead of professional honorarium)
	Alternative coping strategies (fitness, arts, hobbies)	3, 600	6 sessions × 600/session (simpler materials)
Enhance Body Image	Body positivity workshops	2, 400	3 workshops × 800/workshop (materials & snacks)
	Counseling and self-reflection sessions	4, 800	12 sessions × 400/session (combine group sessions where possible)
	Creative activities (photography, storytelling)	1, 800	Basic materials & printing
Improve Nutrition Practices	Nutrition seminars	2, 400	6 sessions × 400/session (handouts & speaker)
	Meal planning workshops	3, 000	6 sessions × 500/session (ingredients & simple materials)
	Cooking demonstrations	3, 600	6 sessions × 600/session (simpler ingredients)
	Nutrition tracking	950	Printouts
TOTAL:		38, 750	