# RELIGIOSITY AS A MODERATOR: UNDERSTANDING EMOTIONAL PROBLEMS IN LESBIAN, GAY, BISEXUAL YOUTH.

**Maria Karachaliou** (1286153)
Supervisor: Margreet de Looze
Second assessor:

Faculty of Behavioral and Social Sciences
Master Thesis Youth Development and Social Change
Utrecht University
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## Abstract

The purpose of this study is to investigate the impact of religiosity on the mental health of LGB youth using data from the Dutch Health Behaviour in School-aged Children Study (2017/2018). It investigates whether LGB youth have more emotional problems than heterosexual peers and whether this is amplified by the potential moderating role of religiosity. A cross-sectional study of 6,647 high school students used the Strengths and Difficulties Questionnaire (SDQ) for emotional problems and a single-item question for religiosity. Both hypotheses are tested using linear regression, including control variables. The first hypothesis is confirmed, with LGB youth reporting higher emotional problems than their heterosexual peers. However, there is no evidence that religiosity is significantly moderating the relationship between sexual orientation and emotional problems among LGB youth. The study explores mental health disparities among LGB youth and emphasizes the importance of addressing societal discrimination and the need for intervention.


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# Introduction

Within only two decades, there have been substantial changes in societal and scientific awareness of lesbian, gay, and bisexual (LGB) people (Gallup, 2015). Despite the notable shift in public support for LGB issues, their mental health remains compromised and continues to be at a heightened risk. Youth who identify as a sexual minority (lesbian, gay, bisexual) experience significantly higher levels of depression, anxiety, and other mental health issues than their heterosexual peers (Chakraborty et al., 2011; Marshal et al., 2011; Borgogna et al., 2019; Seehuus et al., 2021; Alibudbud, 2021). This study aims to investigate how religiosity interacts with the mental health challenges that LGB youth face. The study findings will inform the development of culturally sensitive interventions for the LGB community.

## The mental health of LGB youth

The Minority Stress Model, developed by Meyer in 2003, serves as a fundamental framework for understanding the mental health outcomes of LGB individuals within the context of a heteronormative society. This model posits that socially stigmatized populations, such as lesbian, gay, and bisexual individuals, commonly confront violence, discrimination, and rejection, all of which contribute to heightened levels of anxiety (Meyer, 2003). In addition to the risk factors affecting all youth, like family conflicts, specific stressors uniquely affect LGB youth, such as the challenges of coming out, the societal stigma, and experiences of discrimination (Russell, 2003, Russell, 2005).

Empirical research provides significant evidence supporting the premises presented in the Minority Stress Model. This research contributes significantly to understanding the mechanisms behind depression, suicidality, and substance abuse in the LGB population (Mongelli et al., 2019). It specifically emphasizes the phenomenon

of “double discrimination” faced by some subgroups such as bisexual individuals, older homosexuals, ethnic minority LGB individuals, and transgender adults. Moreover, a recent investigation carried out by Anthony Fulginiti and his colleagues (2020) revealed a significant correlation between minority stress and both suicidal thoughts and suicide attempts. This association was seen both directly and indirectly, mediated by symptoms of depression, post-traumatic stress disorder (PTSD), and hopelessness. Therefore, it is comprehensible that sexual minorities have an elevated susceptibility to encountering anxiety and related challenges (Borgogna et al., 2019, Seehuus et al., 2021). Research conducted by Alibudbud (2021) highlights that a substantial number of university students, ranging from one-third to half, are prone to anxiety. Additionally, non-heterosexual students tend to experience greater amounts of anxiety in comparison to their heterosexual peers.

**The role of religion**

LGB individuals with a strict religious upbringing may have higher emotional problems, because of their exposure to heteronormative and patriarchal norms (Reyes et al., 2015). These norms may stem from the adaptation of family structures based on Christianity, which can lead to specific gender roles and sexual hierarchies where traditional masculine men in the role of husband are considered superior (Amoroto, 2016). Additionally, traditional Christian values often only recognize binary gender and do not acknowledge non-heterosexual orientations (Amoroto, 2016).

The early 20th-century theories of Sigmund Freud and other prominent figures (Ellis 1980; Martin & Nichols, 1962), played a pivotal role in shaping the discourse surrounding the impact of religion on LGB’s mental health. Freud's theory emphasized the neurotic aspects of religious beliefs and behaviors, highlighting their role in the repression of natural drives, leading to intrapsychic conflicts and heightened anxiety

(Freud, 1927). Consequently, these concepts laid the groundwork for understanding how religious belief systems that disapprove of sexual minorities can contribute to individuals internalizing negative self-messages. This, in turn, exacerbates the difficulties confronted by LGB youth, compounding the stressors they already face (Page et al., 2013).

Previous research has provided empirical evidence demonstrating that LGB youth growing up in more religious and conservative families are at a higher risk of exposure to homophobic messages, compared to their counterparts in less religious or conservative households (Schope & Eliason, 2000). This exposure to homophobic messages by religious individuals has been empirically linked to feelings of shame, guilt, and the internalization of homonegativity (Sherry et al., 2010). Internalized homonegativity, which is the internalization of negative messages received by LGB individuals from their surroundings and society, can make the process of developing an LGB identity painful and confusing (Meyer and Dean, 1998; Newcomb and Mustanski, 2010). This internalization occurs when negative feedback is adopted and directed towards oneself as self-rejection. So, it is suggested that when faith systems coalesce with sexual orientation, sexual minorities will be unlikely to disclose their sexual orientation to others.

Also, in the Dutch context, religion continues to be a significant influence on attitudes towards homosexuality, with surveys demonstrating a strong correlation between citizens' religiosity and "homonegativity" (Kuyper et al., 2013). While some Christian denominations, notably liberal Protestants, have embraced acceptance of homosexuality and are listed as "Coming Out Churches" (Elhorst & Mikkers, 2011), others continue to express disapproval, highlighting the divergence of religious positions on this issue (MacCulloch, 2003).

Family support has been shown to exert a profound positive influence on the mental health of LGB individuals, particularly in enhancing their self-acceptance and overall well-being (Shilo & Savaya, 2011). While research indicates that family support plays a protective role in the mental health of LGB youth, there has been limited exploration into whether it persists when the family's religious beliefs are opposed to LGB identities and behaviors. It has been suggested however that family acceptance is still protective within families with religious with negative LGB beliefs and practices (Miller et al., 2020). Families can offer validation and encouragement to an LGB child, even when they are part of a religious community that might not offer such support or affirmation (Miller et al., 2020). Family support will be included in the analysis of the study as a control variable.

**The current study**

The current study aims to address the mental health disparities among LGB youth, focusing on the moderating influence of religiosity. Recognizing the persisting mental health inequities in the LGB community, our primary hypothesis suggests that LGB youth experience higher levels of emotional problems than heterosexual peers. Importantly, the second hypothesis examines a moderation effect, specifically whether the variation in emotional problems is more pronounced for those with religious affiliations.

The first hypothesis is “LGB youth report higher emotional problems than heterosexual peers”. And the second hypothesis is “The difference in emotional problems between LGB youth and non-LGB youth will be stronger for religious youth than non-religious youth”. Therefore, we predict that religious LGB youth will exhibit higher emotional problem levels than their heterosexual peers. (see Figure 1).

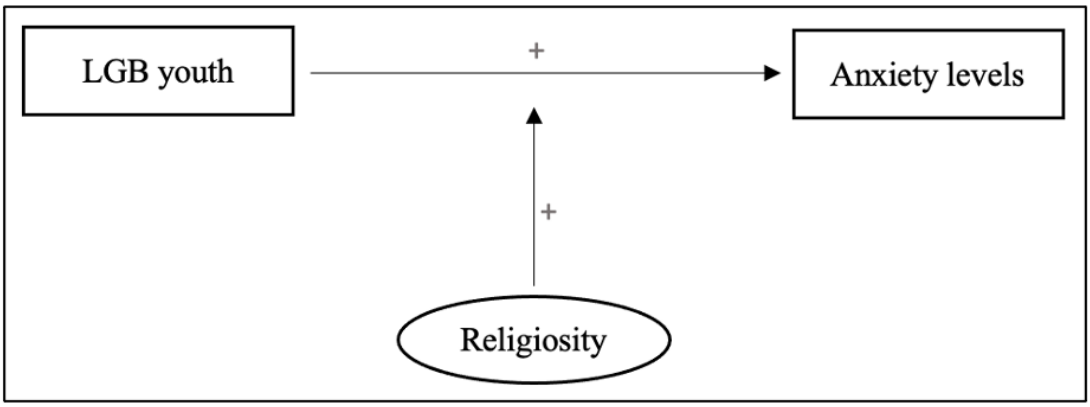


*Figure 1: Conceptual Model*

# Methods

## Participants and Procedure

The present investigation is a quantitative cross-sectional study that utilizes data from the Dutch *Health Behaviour in School-aged Children* (HBSC) dataset. The research is a collaborative project with the World Health Organization Regional Office for Europe. It is conducted every four years since 1983, examining the well-being and health habits of adolescents within their social environments. Specifically, the current study draws from the data collected in the Netherlands during the 2017/2018 academic year, from a sample of 6.647 high school students (Stevens et al., 2018). For a detailed overview of participant demographics, see Tables 1 and 2. The study obtained ethical clearance from the Ethics Committee of the Faculty of Social and Behavioral Sciences of Utrecht University

The data was collected according to the HBSC international study protocol, using a standardized approach. The surveys, which were carried out in schools were completely voluntary and confidential. Under the supervision of qualified research assistants, online self-completion surveys were administered during school hours. A representative group of youth aged, 12 through 18, were chosen using cluster sampling (Stevens et al., 2018). Because the majority of participants were underage, consent from parents or legal guardians was required. Researchers sent consent letters to participants, emphasizing the voluntary and anonymous nature of their participation. More than 99% of parents gave their passive consent.

The data collection process took place in October and November of 2017. Participating students who actively granted permission were assured of anonymity and had the option to withdraw during data collection; 13 students chose to do so (Stevens

et al., 2018). Permission was refused by the parents of 43 students, and data from 683 absent students, constituting 8% of the total, was not collected.

**Table 1**

*Categorical Demographic Characteristics of Participating Adolescents*.

| | *N* (%) |
|---|---|
| Gender | |
| Female | 3389 (51) |
| Male | 3258 (49) |
| Age | |
| 12 | 560 (8.4) |
| 13 | 1245 (18.7) |
| 14 | 1370 (20.6) |
| 15 | 1261 (19) |
| 16 | 1169 (17.6) |
| 17 | 719 (10.8) |
| 18 | 323 (4.9) |
| Educational Level | |
| Vocational (4 years of education) | 2886 (43.4) |
| Pre-academic (5-6 years of education) | 3761 (56.6) |
| Migration Background | |
| A non-Western migration background | 1394 (21) |
| Native Dutch | 5253 (79) |
| Sexual Orientation | |
| Heterosexual | 6376 (96) |
| Homosexual | 109 (1.6) |
| Bisexual | 162 (2.4) |
| Religious Upbringing | |
| Religious | 2305 (34.7) |
| Non-religious | 4342 (65.3) |

**Table 2**

*Continuous Demographic Characteristics of Participating Adolescents*.

| | M (SD) |
|---|---|
| Emotional Problems (1-10) | 2.52 (2.30) |
| Family Support (1-7) | 5.95 (1.56) |

## Measurements

**Romantic attraction.** The independent variable sexual orientation was calculated by combining the two items: "You are attracted to...*"* and gender. Participants were asked to respond to "You are attracted to…" with the following options: 1=girls, 2=boys, 3=both girls and boys, 4= I am not attracted yet to anyone. Participants who were unsure about their sexual orientation were excluded from the study. Participants' gender was measured by answering the question "Are you a girl or a boy?" with a score of 1 representing boy and a score of 1 representing girl. Dummy variables were created for the analysis to compare homosexual and bisexual youth with heterosexual youth independently.

**Emotional Symptoms**. The dependent variable emotional problems was assessed using the Strengths and Difficulties Questionnaire (SDQ) Emotional Problems subscale, comprising five specific items: "I worry a lot," " I get a lot of headaches, stomach-aches or sickness," " I am often unhappy, down-hearted or tearful," " I am nervous in new situations, I easily lose my confidence.," and " I have many fears, I am easily scared." Participants were asked to rate each statement based on the past six months, on a scale of 1 to 3, where 1 represents "Not True," 2 represents "Somewhat True," and 3 represents "Certainly True." The total subscore ranges from 0 to 10, with a higher score indicating a greater extent of emotional problems.

**Religiosity.** The moderating variable religiosity was measured with one item: "Are you raised with a specific religion?" Participants were asked to identify their religious affiliation using the following options: 1=Yes, Catholic, 2=Yes, Christian, 3=Yes, Islamic, 4=Yes, a different religion, namely, 5=No, I am not raised with religion. Based on their answers, the variable was converted into a dichotomous variable with a score of 0 representing non-religious and 1 representing religious.

**Control Variables**

**Age.** The participants provided their birth month and year. Their age was calculated using these data and the date of collection.

**Gender**. Participants were asked to indicate their gender by answering " Are you a girl or a boy?" with a score of 1 representing boy and a score of 2 representing girl.

**Family Support.** Participants were asked to rate their alignment with four statements regarding the perceived emotional support and help within their family on a scale from 1 (very strongly disagree) to 7 (very strongly agree): "My family tries to help me," "I get the emotional help and support I need from my family," "I can talk about my problems with my family," and "My family is willing to help me make decisions." The overall Family Support score was calculated by summing the ratings from each item and dividing them by four.

**Education Track.** The educational system in the Netherlands is divided into four tracks. Two of them are vocational training, while the other two are pre-academic. Adolescents were divided into two groups based on their responses to the question about the class they were in one representing the vocational levels (0) and one representing the pre-academic levels (1).

**Migration Background.** Adolescents were asked where they were born. Adolescents with a non-Western migration background were identified as having at least one parent born in a non-Western country (1; native Dutch = 0).

## Statistical Analysis

All statistical analyses will be conducted using the Statistical Package for the Social Sciences (SPSS) software. All analyses were controlled for gender, age, migration background, education track, and family support. The assumptions for a linear regression analysis were checked before analyzing the results. Every assumption has been met.

To test the first hypothesis, which posits that "LGB youth report higher emotional problems than heterosexual peers", we will employ linear multiple regression in SPSS. Dummy variables were created to compare LGB youth with heterosexual youth. The reference category for the sexual orientation variable was set as heterosexual youth (coded as 0), with a single dummy variable representing LGB youth (coded as 1). This coding allows for the comparison of emotional problems between LGB and heterosexual youth in the subsequent regression analyses.

For the second hypothesis, which suggests that "The difference in emotional problems between LGB youth and non-LGB youth will be stronger for religious youth than non-religious youth," an interaction term will be included in the regression model. This addition aims to determine if religiosity moderates the relationship between sexual orientation and emotional problems.

# Results

## Descriptive Statistics

Table 3 presents the descriptive statistics for the emotional problems per sexual orientation group. According to these findings, homosexual and bisexual adolescents exhibit greater emotional issues than heterosexual adolescents. The emotional problems scale ranges from 0 to 10, with a higher score indicating a greater extent of emotional problems. Bisexual youth report substantially higher emotional problem scores than their homosexual and heterosexual peers. Even though some interesting insights arise when separating the bisexual from the homosexual youth, the later analysis will include them as one group to achieve more reliable results, due to the small size of each sexuality group.

**Table 3.**

*Descriptive Statistics of Emotional Problems per Sexual Orientation Group*.

| | Emotional Problems |
|---|---|
| | *M* (*SD*) |
| Overall | 2.52 (2.30) |
| Heterosexual | 2.46 (2.26) |
| Homosexual | 2.97 (2.40) |
| Bisexual | 4.78 (2.60) |

*Note*. *M* = mean, *SD* = standard deviation. The range for each variable is from 1 to 10.

## Hypothesis Testing

### *First Hypothesis: LGB youth report higher emotional problems than heterosexual peers*

A linear multiple regression was used to test the hypothesis that LGB youth have higher emotional problems than their heterosexual counterparts. The control variables that are included in the analyses are family support, migration background, educational track, gender, and age. The control variables family support, gender, and age have statistically significant coefficients (p-value =.000), indicating that they all have a significant impact on emotional problem levels in the studied population. Furthermore, the control variables migration status and education level, do not show statistically significant coefficients, indicating that these variables are not significant predictors of emotional problems among the sampled youth within the scope of this study. The inclusion of the control variables in the model improves the robustness of our LGB-related findings, highlighting the importance of accounting for potential confounding variables and ensuring a more precise understanding of LGB's unique influence on emotional problems.

Even after controlling for these variables, the LGB unstandardized coefficient B remains statistically significant (p-value =.000) at 1.16. The beta coefficient (= 0.1) indicates that the impact of LGB status on emotional problems is substantial compared to the other variables in the model. This positive beta signifies that LGBT youth experience more emotional problems than their heterosexual peers. So, based on the results of the linear regression, the first hypothesis was supported (see Table 4). The R-squared value is 0.17, which means that 17% of the variance in emotional problems is accounted for by the predictor variables. This R-squared value is considered relatively

small, which indicates that there is limited ability of the model to predict or explain the observed variations in the dependent variable.

**Table 4.**

*Results of the Linear Regression Analysis.*

| Variable | Emotional Problems | | | | |
|---|---|---|---|---|---|
| | *B* | *SE B* | *ß* | $R^2$ | *Sig.* |
| Constant | .98 | .28 | | .17 | 0.00 |
| LGB Youth | 1.16 | .13 | .1 | | 0.00 |
| Gender | 1.52 | .05 | .33 | | 0.00 |
| Age | .07 | .02 | .05 | | 0.00 |
| Family Support | -.3 | .02 | -.21 | | 0.00 |
| Migration Status | -.09 | .06 | -.02 | | 0.15 |
| Educational Level | .02 | .05 | .00 | | 0.73 |

*$p < .05$. **$p < .01$. ***$p < .001$.

***Second Hypothesis: The difference in emotional problems between LGB youth and non-LGB youth will be stronger for religious youth than non-religious youth.***

The variable of religiosity and its interaction term with LGB youth was included in the regression model to determine whether the observed difference in emotional problems between LGB youth and heterosexual youth is stronger for religious youth versus non-religious youth. Despite the main effects of both religiosity and sexual orientation being significant, their combined effect is not statistically different from zero. The effect of religiosity on emotional problems is not significantly different in LGB youth from that observed in heterosexual youth, as indicated by the non-significant interaction term. Based on that, it can be concluded that the association between sexual orientation and emotional problems is not significantly moderated by religiosity. (see Table 5).

The R-square value is 0.17, which means that the percentage of the variance in emotional problems that is explained by the predictor variables is still relatively low and the introduction of the interaction term did not lead to a meaningful increase in the explanatory power of the model.

**Table 5.**

*Results of the Linear Regression Analysis with an Interaction Term.*

| Variable | Emotional Problems | | | | |
|---|---|---|---|---|---|
| | *B* | *SE B* | *ß* | $R^2$ | *Sig.* |
| Constant | 1.01 | .28 | | .17 | .00 |
| LGB Youth | 1.1 | .16 | .09 | | .00 |
| Gender | 1.52 | .05 | .33 | | .00 |
| Age | .07 | .02 | .05 | | .00 |
| Family Support | -.3 | .02 | -.21 | | .00 |
| Migration Status | -.04 | .07 | -.01 | | .59 |
| Educational Level | .02 | .05 | .01 | | .66 |
| Raised Religiously | -.15 | .06 | -.03 | | .01 |
| Raised Religiously*LGB Youth (Interaction Term) | .17 | .28 | .01 | | .55 |

*$p < .05$. **$p < .01$. ***$p < .001$.

## Discussion

The current study aimed to investigate the complex interplay of sexual orientation and religiosity on the emotional well-being of adolescents. More specifically, initially, it explored whether LGB youth experience higher levels of emotional problems compared to their heterosexual peers. Secondly, it examined the potential moderating role of religiosity in these emotional disparities.

The first hypothesis of the study was confirmed, and the results aligned with the existing literature, highlighting that LGB youth face higher emotional problems than their heterosexual counterparts. The heightened emotional problems of the LGB youth can be associated with the unique stressors they face, including discrimination, societal stigma, internalized homonegativity, and the challenges of coming out. These factors, as proposed by the Minority Stress Model (Meyer, 2003), can contribute to the escalation of anxiety and emotional problems among LGB individuals. Thus, our research findings may provide support for the Minority Stress Model (Meyer, 2003), which emphasizes the role of minority stressors in impacting LGB youth mental health. The observation of these persistent mental health disparities highlights the necessity for ongoing efforts to tackle societal discrimination and foster inclusivity.

However, the study didn't find evidence to support the second hypothesis that the difference in emotional problems will be stronger for youth raised in religious families. The findings indicate that religiosity may not be responsible for increasing the emotional problems experienced by LGB youth in this context. Therefore, this suggests that although religiosity and sexual orientation impact independently LGB's emotional well-being, their combined effect did not reveal a significant interaction. Our initial exploration was guided by the Minority Stress Model, as it emphasizes the potential increase of mental health struggles within religious families. The Minority Stress

Model, suggests that socially stigmatized populations, including LGB individuals, experience more stressors, such as discrimination and rejection. Religious households are common to be associated with traditional gender expectations and norms, that can rooted in sexual roles and hierarchies and specific religious values. That could contribute to a home environment in which LGB youth may encounter heightened challenges regarding their sexual orientation. Thus, the stressors illustrated by the Minority Stress Model may be aggravated due to the collision between religious teaching and their non-heterosexual orientation. Nevertheless, despite the initial expectations based on the Minority Stress Model, the lack of statistically significant interaction prompts a reevaluation of those influences.

This challenges some earlier theories that proposed a major negative effect of religious beliefs on the mental health of LGB youth. However, we should take into account the protective effect of certain factors on LGB identity and mental health, as it can mitigate the negative effects of minority stressors and religiosity on emotional well-being among LGB youth. For instance, positive parental relationships, family support, and an accepting communal environment have been identified as crucial protective factors for the well-being of youth, including LGB individuals (Steinberg and Duncan, 2002). So, even though religion has been identified as a risk factor within families, family support in those settings may buffer against the potential harm connected with religious opposition to homosexuality. Moreover, the insignificance of our findings could be explained by the intersectionality of identities, including race, ethnicity, and socioeconomic status, which may interact with LGB youth and religious affiliation in influencing mental health outcomes. Such an example is the socioeconomic factors, where accessibility to supportive resources and healthcare may play a role in mitigating the emotional problem of LGB youth (McGarrity, 2014). Finally, the moderating effect

of religiosity on mental health among LGB youth may be less prominent in the Dutch setting, where attitudes toward homosexuality have shown a variety of acceptance among different Christian denominations (Kuyper et al., 2013). Some liberal Protestant churches may have more accepting viewpoints, serving as supportive environments for LGB individuals, whereas others may have more conservative stances.

**Strengths and Limitations**

Our study has several strengths. It incorporates a sizable diverse sample, allowing the generalizability of the research findings to the Dutch setting. Another advantage is the use of a standardized questionnaire, such as the Strengths and Difficulties Questionnaire (SDQ). By employing a consistent and measurable instrument, the comparability and reliability of the findings are significantly improved. In addition, the research incorporates other demographic variables as control factors. By including possible confounding variables, the research is enhanced, ensuring a more precise examination of the unique influence of the LGB status on emotional problems.

While reviewing the findings, there are many limitations in the study that must be taken into account. First, as the study relies on self-reported data, there is a possibility that the participants could unintentionally add bias. Thus, participants may potentially exaggerate or downplay some parts of their experiences as a result of their subjective interpretation, or the negative societal judgment linked to being an LGB youngster. Furthermore, the emphasis on the Dutch setting may potentially restrict the generalization of the findings to other cultural situations. The findings may lack general applicability, particularly in areas where there are distinct societal and cultural perspectives on matters related to LGB concerns. Moreover, given that the study primarily examines the influence of being raised religiously, an investigation of specific religious beliefs might offer a more comprehensive understanding of what can affect

the mental well-being of those who identify as LGB. Furthermore, employing a dichotomous variable for assessing religiosity might simplify the intricate aspects of religiosity. Finally, the study's cross-sectional design hinders the research's capacity to establish a cause-and-effect link between the variables.

**Future Research**

While acknowledging the limitations and the strengths of the study, it's important to explore potential directions for future research that can build upon our insights and constraints. Firstly, future research could employ a longitudinal design to better understand the causal relationship between religiosity, and emotional problems among the LGB youth. Furthermore, a detailed investigation of specific religious beliefs, denominations, and attitudes could provide a more in-depth examination of their impact on the mental health of LGB individuals. For instance, the degrees of religious commitment and the individual interpretation of religious teachings should be further explored. Moreover, the role of social support networks as well as community acceptance should be investigated, to help mitigate emotional problems among LGB youth. To develop targeted interventions and strategies that foster acceptance, it is important to identify the specific mechanisms that positively impact mental health within supportive communities. Lastly, taking into account the intersectionality of different identities, future research could also investigate how characteristics such as race, ethnicity, and socioeconomic status intersect with religiosity and sexual orientation to influence mental health among LGB youth. Integrating these questions into research could contribute to a more comprehensive understanding of the diverse experiences within this community.

## Conclusion

In conclusion, this study highlights the complex dynamics between sexual orientation, religiosity, and emotional well-being among adolescents in the Dutch context. The findings support previous research by suggesting that LGB youth have higher levels of emotional problems than heterosexual youth. Such challenges may be attributed to unique stressors that include discrimination, societal stigma, and internalized homonegativity, emphasizing the importance of ongoing efforts to address societal discrimination and promote inclusivity. Contrary to previous theories, our study did not find a significant interaction between religiosity and sexual orientation in influencing emotional problems. Our initial expectations were based on existing literature, suggesting that religious beliefs, especially those that disapprove of non-heterosexual orientations, could aggravate the emotional problems among LGB youth. While religiosity may have an independent impact on LGB youth's mental health, it's essential to note potential positive aspects. Protective factors within religious environments, such as community support may mitigate potential harm. It is suggested that the presence of those supportive structures can provide a positive influence on the mental health of LGB youth. To better understand the complex factors influencing the mental health of LGB youth future research must be done. The focus of those endeavors should be on longitudinal studies and in-depth investigations into specific religious beliefs and attitudes. Additionally, an investigation of the concept of intersectionality will provide insights into the diverse experiences within this community. Protective factors within religious environments, such as community support may mitigate potential harm. It is suggested that the presence of those supportive structures can provide a positive influence on the mental health of LGB youth.

*References*

Alibudbud, R. C. (2021). "Does Sexual Orientation Matter?": A Comparative Analysis of the Prevalence and Determinants of Depression and Anxiety Among Heterosexual and Non-Heterosexual College Students in a University in Metro Manila. *Journal of Homosexuality*, 1-19.

Amoroto, B. (2016). Structural-systemic-cultural violence against LGBTQs in the Philippines. *Journal of Human Rights and Peace Studies*, 2(1), 67–102.

Borgogna, N. C., McDermott, R. C., Aita, S. L., & Kridel, M. M. (2019). Anxiety and depression across gender and sexual minorities: Implications for transgender, gender nonconforming, pansexual, demisexual, asexual, queer, and questioning individuals. *Psychology of Sexual Orientation and Gender Diversity*, 6(1), 54–63.

Chakraborty, A., McManus, S., Brugha, T. S., Bebbington, P., & King, M. (2011). Mental health of the non-heterosexual population of England. *The British Journal of Psychiatry*, 198, 143–148.

Cohen, J. M., Blasey, C., Barr Taylor, C., Weiss, B. J., & Newman, M. G. (2016). Anxiety and Related Disorders and Concealment in Sexual Minority Young Adults. *Behavior therapy*, *47*(1), 91–101.

Elhorst, W., & Mikkers, T. (2011). Coming out Churches: Gids voor kerk en homo. Meinema.

Ellis, A. (1980). Psychotherapy and atheistic values: A response to A. E. Bergin's 'psychotherapy and religious values.' Journal of Social Psychology, 48, 642-645.

Freud, S. (1927). The future of an illusion. In J. Strachey (Ed.), Standard edition, Vol. 21, pp. 3-56. London: Hogarth Press, 1962.

Fulginiti, A., Rhoades, H., Mamey, M. R., Klemmer, C., Srivastava, A., Weskamp, G., & Goldbach, J. T. (2020). Sexual minority stress, mental health symptoms, and suicidality among LGBTQ youth accessing crisis services. Journal of Youth and Adolescence, 50(5), 893–905. https://doi.org/10.1007/s10964-020-01354-3

Gallup. (2022, July 13). *LGBT rights*. Gallup.com. Retrieved January 17, 2023, from https://news.gallup.com/poll/1651/gay-lesbian-rights.aspx

Hatzenbuehler, M. L., Keyes, K. M., & Hasin, D. S. (2009). State-level policies and psychiatric morbidity in lesbian, gay, and bisexual populations. *American Journal of Public Health*, 99, 2275–2281.

Health Behaviour in School-aged Children (HBSC). (n.d.). About [Web page]. Retrieved from https://hbsc.org/about/

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication. *Archives of General Psychiatry*, *62*(6), 593.

Koenig, H. G., & Larson, D. B. (2001). Religion and mental health: Evidence for an association. *International Review of Psychiatry, 13*(2), 67–78.

Koenig, H. G., Ford, S. M., George, L. K., Blazer, D. G., & Meador, K. G. (1993). Religion and anxiety disorder: An examination and comparison of associations in young, middle-aged, and elderly adults. *Journal of Anxiety Disorders, 7*(4), 321–342.

Kuyper, L., Iedema, J., & Keuzenkamp, S. (2013). Towards Tolerance: Exploring Changes and Explaining Differences in Attitudes towards Homosexuality in Europe. The Netherlands Institute for Social Research.

Lester, D. (1987). Religiosity and personal violence: A regional analysis of suicide and homicide rates. *The Journal of Social Psychology*, *127*(6), 685–686.

MacCulloch, D. (2003). Reformation: Europe's House Divided. Penguin.

Marshal, M. P., Dietz, L. J., Friedman, M. S., Stall, R., Smith, H. A., McGinley, J., . . . Brent, D. A. (2011). Suicidality and depression disparities between sexual minority and heterosexual youth: A metaanalytic review. *The Journal of Adolescent Health*, 49, 115–123.

Marshal, M. P., Dietz, L. J., Friedman, M. S., Stall, R., Smith, H. A., McGinley, J., Thoma, B. C., Murray, P. J., D'Augelli, A. R., & Brent, D. A. (2011). Suicidality and depression disparities between sexual minority and heterosexual youth: A meta-analytic review. *Journal of Adolescent Health*, *49*(2), 115–123.

Martin, C., & Nichols, R. C. (1962). Personality and religious belief. Journal of Social Psychology, 56.3-8.

McConnell, E., Birkett, M., & Mustanski, B. (2016). Families Matter: Social Support and Mental Health Trajectories Among Lesbian, Gay, Bisexual, and Transgender Youth. The Journal of Adolescent Health, 59.

McGarrity, L. A. (2014). Socioeconomic status as context for minority stress and health disparities among lesbian, gay, and bisexual individuals. Psychology of Sexual Orientation and Gender Diversity, 1(4), 383.

Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129, 674–697.

Meyer, I. H., & Dean, L. (1998). Internalized homophobia, intimacy, and sexual behavior among gay and bisexual men. In G. M. Herek (Ed.), *Stigma and sexual orientation: Understanding prejudice against lesbians, gay men, and bisexuals* (pp. 160–186). Sage Publications

Miller, K., Watson, R., & Eisenberg, M. (2020). The Intersection of Family Acceptance and Religion on the Mental Health of LGBTQ Youth. Annals of LGBTQ Public and Population Health, 1, 27-42.

Mongelli, F., Perrone, D., Balducci, J., Sacchetti, A., Ferrari, S., Mattei, G., & Galeazzi, G. M. (2019). Minority stress and mental health among LGBT populations: An update on the evidence. Minerva Psichiatrica, 60(1). https://doi.org/10.23736/s0391-1772.18.01995-7

Newcomb, M. E., & Mustanski, B. (2010). Internalized homophobia and internalizing mental health problems: a meta-analytic review. *Clinical psychology review*, *30*(8), 1019–1029.

Pachankis, J. E. (2007). The psychological implications of concealing a stigma: A cognitive-affective-behavioral model. *Psychological Bulletin*, 133, 328–345.

Pachankis, J. E., Cochran, S. D., & Mays, V. M. (2015). The mental health of sexual minority adults in and out of the closet: A population based study. *Journal of Consulting and Clinical Psychology.*

Page, M. J., Lindahl, K. M., & Malik, N. M. (2013). The role of religion and stress in sexual identity and mental health among lesbian, gay, and bisexual youth. *Journal of Research on Adolescence*, *23*(4), 665-677.

Poteat, V. P., & Anderson, C. J. (2012). Developmental changes in sexual prejudice from early to late adolescence: The effects of gender, race, and ideology on different patterns of change. *Developmental Psychology*, *48*(5), 1403–1415.

Reyes, M. E., Lanic, P. J., Lavadia, E. N., Tactay, E. F., Tiongson, E. R., & Tuazon, P. J. (2015). Self-stigma, self-concept clarity, and mental health status of Filipino LGBT individuals. *North American Journal of Psychology*, 17(2), 343–350.

Rosario, M., Meyer-Bahlburg, H. F., Hunter, J., Exner, T. M., Gwadz, M., & Keller, A. M. (1996). The psychosexual development of urban lesbian, gay, and bisexual youths. *Journal of Sex Research, 33*(2), 113 126.

Russell, S. T. (2003). Sexual minority youth and suicide risk. *American Behavioral Scientist*, *46*(9), 1241–1257.

Russell, S. T. (2005). Beyond risk: Resilience in the lives of sexual minority youth. *Journal of Gay & Lesbian Issues in Education*, *2*(3), 5–18.

Schope, R. D., & Eliason, M. J. (2000). Thinking versus acting: Assessing the relationship between heterosexual attitudes and behaviors toward homosexuals. *Journal of Gay & Lesbian Social Services*, 11(4), 69–92.

Sedlovskaya, A., Purdie-Vaughns, V., Eibach, R. P., LaFrance, M., Romero-Canyas, R.,&Camp, N. P. (2013). Internalizing the closet: Concealment heightens the cognitive distinction between public and private selves. *Journal of Personality and Social Psychology*, 104, 695 715.

Sherry, A., Adelman, A., Whilde, M. R., & Quick, D. (2010). Competing selves: Negotiating the intersection of spiritual and sexual identities. *Professional Psychology: Research and Practice*, 41, 112–119.

Shilo, G., & Savaya, R. (2011). Effects of Family and Friend Support on LGB Youths' Mental Health and Sexual Orientation Milestones. Family Relations, 60, 318-330

Steinberg, L., & Duncan, P. (2002). Workgroup IV: Increasing the capacity of parents, families, and adults living with adolescents to improve adolescent health outcomes. *Journal of Adolescent Health, 31*(6), 261–263.

# Appendix A

The use of theoretical insights from several scientific disciplines, such as psychology, sociology, and anthropology, can greatly contribute to understanding the effect of religiosity on emotional problems among LGB (lesbian, gay, bisexual) youth. For example, psychological theories can be used to understand the cognitive and emotional processes that may underlie the relationship between religiosity and anxiety in LGB youth. Sociological theories can be used to understand the social context in which LGB youth experience religiosity and emotional problems, and how this context may shape their experiences. Anthropological theories can be used to understand the cultural and historical factors that may influence the relationship between religiosity and anxiety in LGB youth. By considering perspectives from multiple disciplines, researchers can gain a more holistic understanding of the complex factors that may contribute to the relationship between religiosity and anxiety among LGB youth.

In the model that includes religiosity, emotional problems, and LGB youth, religiosity would likely be considered a factor at the person level, as it is likely to be influenced by an individual's personal beliefs and experiences. Emotional problems would also likely be considered a factor at the personal level, as it is a personal experience. LGB youth would likely be considered a factor at the group level, as it is related to an individual's identification with a specific group within society.

It is likely that these contexts interact and build on each other in this model. Religiosity may influence an individual's level of emotional problems, based on their beliefs and practices, and how these align or conflict with societal and cultural norms. Anxiety may influence an individual's ability to cope with the challenges and discrimination of being an LGB youth and how they navigate their identity in different

environments. Societal attitudes towards LGB individuals may influence the level of anxiety experienced by LGB youth and the level of acceptance and support they receive from their family, peers, and community.

In conclusion, this study is an interdisciplinary endeavor that requires the integration of theoretical insights from multiple scientific disciplines, such as psychology, sociology, and anthropology. It is important to continue studying this topic from different disciplines and perspectives to gain a more holistic understanding of the experiences and well-being of LGB youth.

# Appendix B

## Syntax

```
DATASET ACTIVATE DataSet1.
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT emotional_problems
  /METHOD=ENTER lgb v2 age sc_steun_thuis migration_background
educational_level_binary.


REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT emotional_problems
  /METHOD=ENTER lgb v2 age sc_steun_thuis migration_background
educational_level_binary v9a interaction_term
```