CHALLENGING PREJUDICE: THE INFLUENCE OF TAILORED INTERGROUP DIALOGUE LEARNING PROGRAM ON HOMOPHOBIA AND ALLY IDENTITY FOR COLLEGE STUDENTS IN SOUTHWEST CHINA

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BY

SHUSHU ZOU

HAS BEEN APPROVED BY THE GRADUATE SCHOOL IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DOCTOR OF PHILOSOPHY IN APPLIED PSYCHOLOGY AT SRINAKHARINWIROT UNIVERSITY

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This three-phase Research and Development (R&D) study examined the effects of a tailored intergroup dialogue learning program on homophobia and ally identity among college students in Southwest China–a region shaped by Confucian collectivism, filial piety norms, ethnic diversity, and limited LGBTQ-inclusive education, where homophobia persists despite increasing societal acceptance of same-sex attraction. Although previous research has extensively examined homophobia and allyship in Western contexts, particularly through intergroup contact and social constructivist theories, relatively little attention has been given to Asian settings, especially with respect to culturally adapted interventions and psychometrically validated measures for Chinese university populations. The present study aimed to (1) validate the psychometric properties of the Homophobia Scale (HS)and the Ally Identity Measure (AIM), (2) develop and pilot a culturally tailored intergroup dialogue learning program, and (3) evaluate its effectiveness in reducing homophobia and enhancing ally identity using a mixed-methods design. The study followed three R&D phases. Phase 1 (n=609) employed confirmatory factor analysis to validate the Chinese versions of the HS and AIM. Phase 2 (pilot study, n = 12) assessed program feasibility using pre–post surveys and focus group discussions. Phase 3 (n = 45; intervention and control groups) adopted a sequential explanatory mixed-methods approach, integrating quantitative HS and AIM scores with qualitative interview data. Results demonstrated strong psychometric properties of the adapted scales following cultural adjustments, satisfactory program feasibility with refinements informed by qualitative feedback, and significant intervention effects. Specifically, participants in the intervention group showed greater reductions in HS scores and greater increases in AIM scores at post-intervention and follow-up compared to the control group. Qualitative findings further revealed themes of increased empathy and reduced prejudice, highlighting the program's potential for promoting ally identity development within a culturally specific educational context.

Keyword : Intergroup Dialogue; Homophobia; Quality Education; Sexual Minority; Research and Development

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This doctoral journey has been a profound learning experience, shaping both my academic growth and personal development. I will carry the knowledge, skills, and insights gained from this process as I continue my career in applied psychology, contributing to the promotion of inclusive and social justice for LGBT people.

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INTRODUCTION

Background

Homophobia and bullying against gay and lesbian youth occur in many countries worldwide, posing significant challenges to mental health and social inclusion (Moyano & Sánchez-Fuentes, 2020). A large European study shows that over half of students who are perceived as gay or lesbian experienced bullying. Many heard negative comments about same-sex attraction (Hui$\acute{c}$ et al., 2016; UNESCO, 2022). In the United States, many gay and lesbian youth report school bullying (Goldberg et al., 2023; Kosciw et al., 2020; Kosciw et al., 2016). These experiences raise the risk of depression, anxiety, and suicidal thoughts (Earnshaw et al., 2018; Valido et al., 2021; Yen et al., 2014).

One of the factors that plays a critical role in mitigating these issues is allyship. When heterosexual people become allies, they reduce prejudice and make schools and workplaces safer (Cramwinckel et al., 2021; Kosciw et al., 2015). To help people become allies, positive contact and education should be implemented (Pettigrew & Tropp, 2006). This highlights the importance of programs that build allyship in reducing prejudice. Findings from the US and Europe motivate the researcher to examine the situation in China.

In China, Confucian values stress family, marriage, and having children (Guo & Liu, 2021; Huang et al., 2020; Suen et al., 2022). Many people see same-sex relationships as being against these values, which creates stigma and discrimination (Chan et al., 2022). Although being gay or lesbian is no longer considered a crime or a mental disorder, same-sex marriage is not legal, and there are no anti-discrimination laws protecting people based on sexual orientation (Wu, 2016; Zhou, 2025). Recent surveys show that more than half of Chinese people now accept gay and lesbian individuals in society (Meyer et al., 2024). However, many people still feel uncomfortable

if their own child or a neighbor is gay or lesbian, reflecting a persistent underlying unease.

This attitude also appears in universities (Liu et al., 2019). Chinese college students are at a critical stage of personal growth (Qu et al., 2015; Zheng & Wen, 2021), during which universities play a significant role in shaping their values and social skills. A large survey of over 54,000 students found that approximately 4.6% identified as same-sex attracted (CFPA, 2020). Gay and lesbian students often face bullying, experience isolation, and exhibit poorer mental health (Huang et al., 2018; Storrie et al., 2010). Classes rarely address same-sex attraction, and support services are limited (Chan & Lam, 2023b; Wei & Liu, 2019). In Southwest China, exclusion is even more pronounced (Wang et al., 2020). For these reasons, universities represent a key context in which to study homophobia and allyship.

Despite growing societal tolerance, reliable measurement of homophobia and ally identity in China remains limited. Most validated scales, such as the Homophobia Scale (Wright et al., 1999) and Ally Identity Measure (Jones et al., 2014), originated in Western contexts and require cultural adaptation. Existing Chinese studies on homophobia often focus on internalized homophobia among LGBTQ individuals themselves, using adapted scales like the Internalized Homophobia Scale (Ren & Hood, 2018; Xu et al., 2017). These target gay/bisexual men or broader LGBTQ samples, emphasizing personal shame rather than heterosexuals' external attitudes toward gay and lesbian people. Few investigations validate measures of general homophobia or ally identity among heterosexual university students, leaving a gap in assessing prejudice in educational settings where interventions could prove most impactful. Although some studies have employed translated versions of homophobia scales in China, these often lack full psychometric validation in university contexts, underscoring the ongoing need for culturally adapted and rigorously tested instruments (Lin & Hsieh, 2010; Yu et al., 2011). This scarcity of context-specific tools hinders accurate evaluation of interventions aimed at reducing prejudice in higher education.

One suitable intervention for reducing prejudice is the intergroup dialogue learning program, which is a structured teaching method that brings students from different social groups together for guided discussions. This method originated in the 1980s in the United States to reduce racial tension (Halter et al., 2020). It combines factual knowledge with activities that help students reflect on privilege and oppression (Zúñiga et al., 2007). When heterosexual and gay or lesbian students engage in dialogue in a safe space, they build empathy, which reduces homophobic attitudes and helps heterosexual students become active allies (Dessel, 2010; Imperato & Mancini, 2021). This model also works effectively online. Moreover, empirical evidence supports its role in reducing sexual orientation prejudice, with studies showing decreased homophobic behaviors and increased positive attitudes toward LGBTQ individuals through sustained, facilitated contact (Dessel et al., 2011).

This method draws from key social psychology theory. Allport (1954)'s Intergroup Contact Theory states that prejudice decreases when different groups have positive contact under four conditions: equal status, common goals, support from authority, and cooperation. Many studies confirm that contact reduces prejudice, including prejudice related to same-sex attraction (Hässler et al., 2022; Pettigrew & Tropp, 2006). The intergroup dialogue learning program also creates these contact conditions, which is why this dialogue method can change attitudes and foster ally identity (Frantell et al., 2019). In educational settings, this theory has been applied to combat homophobia, with interventions demonstrating moderate to strong effects on reducing stigma when contact is structured and supportive (BartoŞ et al., 2014).

Furthermore, this method draws from Vygotsky (1978) and Berger and Luckmann (1966)'s Social Constructivist Theory, which posits that people build their beliefs and identities through interaction with others (Kukla, 2002), including learning from parents, teachers, peers, and media about topics such as homophobia (Kitzinger, 1995) and ally identity (Al-Qaysi et al., 2021; Kite et al., 2022). The intergroup dialogue learning program provides students with new positive interactions that help them rethink old ideas about same-sex attraction and become allies (Meyer, 2007). This framework is

particularly relevant in collectivist cultures like China, where social norms heavily influence identity formation, and dialogue can challenge ingrained heteronormative views through collaborative meaning-making (Kwok, 2013).

Past studies on intergroup dialogue learning programs have predominantly employed qualitative methods, such as interviews or focus groups, and have primarily addressed racial prejudice or gender issues (Dessel & Rogge, 2008; Fetters et al., 2013; White et al., 2019; Zúñiga et al., 2007). Quantitative or mixed-method investigations examining the efficacy of intergroup dialogue learning programs in reducing homophobia or fostering ally identity remain scarce (Dessel, 2010; Dessel et al., 2013; 2011; Frantell et al., 2019). In China, few studies have conducted intergroup dialogue learning programs with both heterosexual and gay or lesbian students (Wei, 2022), particularly in Southwest China, where cultural conservatism amplifies challenges.

Moreover, most research on program effectiveness and psychometric validation of homophobia/ally measures occurs in Western contexts, revealing a substantial gap in Asian settings—especially China, with its unique Confucian and collectivist influences. This underscores the need for culturally tailored interventions and validated tools suited to regional norms. In Asia, applications of intergroup dialogue learning programs for LGBTQ issues have been limited, with sparse evidence from regions like Southeast Asia showing potential but highlighting cultural barriers such as familial expectations and societal stigma (Encarnación, 2020; Terrell & Cortes, 2025). For example, interventions have addressed homophobic bullying in Hong Kong and Thailand but lack rigorous quantitative evaluation of long-term attitude shifts (Kwok & Wu, 2015). This regional underrepresentation, combined with the paucity of validated measures for assessing homophobia and ally identity among heterosexual university students in China, highlights the necessity for culturally adapted instruments and context-specific interventions. The present study addresses these gaps by validating measurement tools, developing and piloting a tailored intergroup dialogue learning program, and evaluating its effectiveness in the Southwest Chinese university context.

Research Question

1.In the socio-cultural context of university students in Southwest China, what are the psychometric properties (reliability and validity) of the Homophobia Scale and Ally Identity Measure? Does the scale structure need adjustment or optimization to better fit the regional characteristics of Southwest China?

2. When piloting the Intergroup Dialogue Learning Program among university students in Southwest China, how suitable are the content and form of the program for this specific group? What challenges and opportunities are encountered during its implementation?

3. How does the Tailored Intergroup Dialogue Learning Program reduce homophobia and increase ally identity among university students in Southwest China:

3.1 By focusing on the differences in outcomes between the two groups, what is the effect of the Tailored Intergroup Dialogue Learning Program in reducing homophobia and enhancing ally identity among college students in Southwest China—specifically, does the intervention group show a significantly greater decrease in Homophobia Scale scores and a significantly larger increase in Ally Identity Measure scores than the control group?

3.2 What unique experiences and insights do university students in Southwest China have when participating in the tailored Intergroup Dialogue Learning Program? How do these experiences shape their attitudes toward the gay and lesbian community and their own construction of ally identity?

Research Objectives

1. To examine the psychometric properties of the Homophobia Scale and the Ally Identity Measure among Southwest Chinese university students.

2. To develop and pilot-test an Intergroup Dialogue Learning Program aimed at reducing homophobia and strengthening ally identity among Southwest Chinese university students.

3. To evaluate the impact of the tailored Intergroup Dialogue Learning Program on homophobia and ally identity in Southwest Chinese university students through a mixed-methods design, comprising:

3.1 To evaluate the effectiveness of the Tailored Intergroup Dialogue Learning Program by examining between-group outcome differences: specifically, to verify whether the intervention group shows a significantly greater decrease in Homophobia Scale scores and a significantly larger increase in Ally Identity Measure scores compared to the control group.

3.2 To explore participants' key lived experiences throughout the Tailored Intergroup Dialogue Learning Program, and to analyze how these experiences shape their homophobic attitudes toward gay and lesbian groups and the construction of their own ally identity.

Scope of the Study

Research and Development (R&D)

This study adopts the Research and Development (RD) methodology (Borg & Gall, 2003) divided into three phases to systematically design, validate, and evaluate interventions targeting homophobia reduction and ally identity promotion among college students in Southwest China. Each phase builds sequentially on the previous one to ensure theoretical rigor and practical applicability, with the following key breakdown:

Phase 1: Psychometric Validation Study

Focuses on refining measurement tools for the local context. The Homophobia Scale (HS) and Ally Identity Measure (AIM) are translated and culturally adapted into Chinese, then validated with Southwest China college students. Confirmatory Factor Analysis (CFA) and Cronbach's α are used to test structural validity and internal reliability (Field, 2005; Lin & Hsieh, 2010; Tabachnick & Fidell, 2019), ensuring the scales accurately capture homophobia and ally identity in this context, laying the foundation for subsequent outcome assessment.

Phase 2: Program Development and Pilot Testing

Implements an initial Intergroup Dialogue Learning Program (Zúñiga et al., 2007) with a small sample to assess viability and preliminary effectiveness. Qualitative feedback from focus groups is integrated to identify gaps and refine the program into a tailored version (Landis & Koch, 1977).

Phase 3: Sequential Explanatory Mixed Method Design

Uses a sequential explanatory mixed-methods design (Creswell & Clark, 2018; Curran et al., 2012; Hwang et al., 2020; Ivankova et al., 2006) to evaluate the tailored program with participants. Quantitative data and qualitative data are combined to verify the intervention's long-term impact and explore attitude change mechanisms (Leavy, 2022).

Intervention: Intergroup Dialogue Learning Program

This study utilizes an intergroup dialogue learning program grounded in Zúñiga seminal work, "Intergroup Dialogue in Higher Education" (Zúñiga et al., 2007). The theoretical basis of the program is intergroup contact theory and social constructivism theory. The intergroup contact theory holds that direct interaction between members of different groups can reduce prejudice and improve intergroup relations (Allport, 1954). According to the theory of social constructivism, sociocultural factors affect cognitive development and environmental perception (Vygotsky, 1978). The intergroup dialogue learning program is divided into five sessions: session 1: Establishing a Foundation for Open Communication, session 2: Exploring Experiences and Identities, Session 3: Intergroup Dialogue on Hot-Button Issues, Session 4: Action Planning and Collaborative Action, Session 5: Feedback on group development.

Dependent Variable: Homophobia and Ally Identity

The dependent variable of the research was homophobia and ally identity, in which homophobia was measured by the Homophobia Scale (HS) (Wright et al., 1999). The scale consists of three factors (negative influence and avoidance behavior; Emotional/aggressive behavior; Cognitive negativity), a total of 25 items, using Likert 5-level scoring method, this scale has good reliability and has been applied in the United States, Italy and other countries. Most homophobia scales currently in use measure

attitudes toward gay people and so-called homophobic negation, but do not cover the entire structure of homophobia. In addition to the attitude items found in many measures of homophobia, the scale incorporates items that assess social avoidance and aggressive behavior, which separate from the Homophobia Scale from other scales.

Ally identity was measured using the Ally Identity Measure (Jones et al., 2014), which assessed LGBTQ support skills, knowledge of LGBTQ experiences, awareness of LGBTQ oppression, and heterosexual Allies' participation in LGBTQ community actions. Including three factors (knowledge and skills, openness and support, and oppression awareness), using Likert 5-level scoring, the scale has strong internal reliability, medium to strong convergence and discriminant validity, and medium to strong retest reliability. To date, no quantitative studies have evaluated these constructs concurrently in heterosexual Allies of the LGBTQ community. Therefore, AIM is a comprehensive measure that creates and identifies with the Allies of psychometric assessment.

Population: College Students in Southwest China

According to the statistics of the International Gay and Lesbian Commission survey in 2020, it can be seen that the number of gays and lesbians in China has reached 70 million, of which the number of gay men is more than 45 million and the number of lesbians is about 25 million, that is to say, the total population accounts for at least 5%. The number one city is Chongqing, with 3.4521 million gay and lesbian, and the number four city is Chengdu, with 2.3623 million gay and lesbian (IGLHRC, 2021). Chongqing and Chengdu are located in Southwest China. Studies have shown that the overall exclusion rate of gay and lesbian is significantly higher in Southwest China (Wang et al., 2020). The research shows that the more people accept gay and lesbian people, the better the economy grows (Wang et al., 2020). So, in places like Shanghai, Guangzhou, and Beijing, where the economy is strong, people are more open and accepting. But, compared to these rich areas, Gay and lesbian individuals in the less developed Southwest part of China face more discrimination. In addition, there will be 1.11 million college students in Chengdu and 1.1 million in Chongqing in 2022 (Wang et

al., 2020). Therefore, this study chooses universities in Southwest China as the research object to study the homophobia of heterosexual and gay lesbian college students.

Definition of Terms

GL (Gay and Lesbian): Individuals emotionally, romantically, or sexually attracted to the same sex.

LGBTQ: Gay, Lesbian, Bisexual, Transgender, Questioning, and Queer people.

Gay and Lesbian Students: Gay college students refer to a group of college students who are emotionally, romantically, or sexually attracted to men of the same sex. Lesbian college students refer to a group of college students who are emotionally, romantically or sexually attracted to women of the same sex.

Heterosexual Students: refer to a group of college students who are consistently sexually and emotionally attracted to individuals of the opposite sex.

Pilot Study: A pilot study is a small - scale preliminary research conducted before a main study to test the work ability, methods, and procedures of the research design. In this study, the pilot study is carried out prior to the formal main study. It assesses the viability of the research design, especially the intergroup dialogue learning program, including its methods and procedures, to check if they can be effectively implemented under constraints such as available resources, time, and methodological requirements. Through this pilot study, the practicality of the experimental approach is evaluated, potential challenges are identified, and refinements are made to ensure the reliability and validity of the main study.

Tailored Intervention: The tailored intervention is a culturally adapted version of the original intergroup dialogue learning program (Zúñiga et al., 2007). It was refined after pilot testing in Phase 2 to better suit university students in Southwest China. Key adaptations include aligning content with local Confucian and ethnic minority norms, incorporating pilot feedback to improve interactive formats, and simplifying concepts for greater engagement.

Viability: Viability refers to the capacity of a research design, including its methods and procedures, to be effectively implemented within the constraints of available resources, time, and methodological requirements. In this study, viability assessment through a pilot test evaluates the practicality of the experimental approach, identifies potential challenges, and informs refinements to ensure the reliability and validity of the main study.

Acceptability: Acceptability in research design refers to the willingness of an individual or group to participate in program, and acceptability measures the degree of acceptance of something by the target population. High acceptability is crucial for ensuring successful research participation and intervention execution.

Operational Definitions

Intergroup Dialogue Learning Program: The research of Zúñiga (2007) on the intergroup dialogue learning program is selected for this project. Zúñiga argue that intergroup dialogue learning program is a unique way to bridge differences in higher education. It can be broadly defined as a face-to-face facilitated learning experience that brings students from different social identity groups together over a sustained period of time to learn about their commonalities and differences, examine the nature and impact of social inequality, and explore ways to work together to achieve greater equality and justice.

In order to better promote the execution of the project, five sessions were set up on the basis of the intergroup dialogue learning program of Zúñiga (2007), one session per week, and each class lasted 90 minutes. Each section is as follows:

Session 1: Starting the Group: Forming and building relationships.

Session 2: Exploring Experiences and Identities

Session 3: Hot topic discussion and dialogue

Session 4: Action plan and alliance building

Session 5: Feedback on group development.

Homophobia: In the present study, homophobia refers to negative attitudes toward gay and lesbian individuals, encompassing cognitive negativity,

affective/aggressive responses, and behavioral avoidance. It is measured using the Homophobia Scale (HS) (Wright et al., 1999), a 25-item instrument consisting of three factors: (a) negative influence and avoidance behavior, (b) emotional/aggressive behavior, and (c) cognitive negativity. Participants respond on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating higher levels of homophobia. The Chinese version of the HS was translated, back-translated, culturally adapted, and psychometrically validated (using confirmatory factor analysis and reliability testing) in Phase 1 of this study with Southwest Chinese university students to confirm its structural validity, internal consistency, and suitability for the local sociocultural context.

Ally Identity: Ally identity refers in this study to the extent to which heterosexual individuals demonstrate knowledge and skills related to LGBTQ issues, openness and supportive behaviors toward sexual minorities, and awareness of oppression faced by these groups. It is assessed using the Ally Identity Measure (AIM) (Jones et al., 2014), which comprises three factors: (a) Knowledge and Skills, (b) Openness and Support, and (c) Oppression Awareness. The measure consists of items rated on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree), with higher total scores reflecting a stronger ally identity. The Chinese version of the AIM underwent translation, cultural adaptation, and rigorous psychometric validation in Phase 1, including confirmatory factor analysis and reliability assessment among Southwest Chinese university students, to ensure its equivalence and appropriateness in the regional context.

CHAPTER 2
LITERATURE REVIEW

The current study adopts a Research and Development (R&D) methodology with three core objectives. The first objective is to validate the psychometric properties (reliability and validity) of the culturally adapted Homophobia Scale (HS) and Ally Identity Measure (AIM) among college students in Southwest China, and to examine whether their factor structures require adjustment to better align with regional cultural characteristics. The second objective is to design, pilot-test, and evaluate a Tailored Intergroup Dialogue Learning Program grounded in intergroup contact theory and social constructivism theory, exploring its effectiveness in reducing homophobia and enhancing ally identity among college students in Southwest China. The following chapter reviews relevant literature on homophobia, ally identity, intergroup dialogue learning programs, and their underlying theoretical frameworks, which form the foundation of this study and inform the development of its conceptual model.

1. Context: Cultural Characteristics of Southwest China

2. Homophobia: Definition, measurement, and its manifestation in the Chinese college context

3. Ally identity: Definition, measurement, and its manifestation in the Chinese college context

4. Intergroup Dialogue Learning Program: Origin, theoretical foundations, definition, process design, and application in prejudice reduction

5. Research and Development (R&D) methodology: Definition, process, and its application in psychological intervention research for prejudice reduction

6. Conceptual Framework

7. Hypothesis of the Study

1. Context

China has 56 ethnic groups, and Southwest China is one of the most ethnically diverse regions, covering Sichuan, Yunnan, Guizhou, Chongqing, and parts of Tibet.

The Han ethnic group accounts for approximately 62% of the regional population, while 38% are ethnic minorities, including Miao, Yi, Tujia, Bai, Dai, and Tibetan (Bureau, 2021). Yunnan Province alone hosts 25 ethnic minorities, the most of any Chinese province, and Guizhou follows with 17 ethnic minorities, each preserving distinct cultural traditions (Li et al., 2020). For example, the Yi people uphold communal labor norms, the Tujia emphasize patrilineal family continuity, and the Dai maintain matrilineal cultural traces in marriage customs (Wei & Liu, 2019).

Regional values are shaped by two overlapping forces. First, Confucian collectivism and ethnic communal norms (Rosen & Nofziger, 2019). Confucianism emphasizes filial piety, family lineage, and social harmony, with the proverb “there are three forms of unfilial piety, and no offspring is the greatest” framing heteronormativity as a family obligation (Xu et al., 2022). Second, ethnic minority cultures further reinforce group cohesion—for instance, Tibetan pastoral communities prioritize collective resource sharing, and Miao villages require adherence to communal decision-making (Wang et al., 2020). Together, these values create a social context where non-heterosexual identities are often viewed as conflicting with family and group interests.

These cultural characteristics directly influence college students’ attitudes toward gay and lesbian groups (Sa et al., 2021). First, Confucian filial piety leads many students to associate same-gender relationships with “family dishonor”. A survey of 1,200 Southwest Chinese college students found that 68% of respondents believed “gay and lesbian individuals fail to fulfill filial duties of continuing the family line” (Zhang et al., 2021). Second, ethnic minority students face additional pressure from communal norms: 72% of Yi and Miao college students reported their communities “discourage discussions of non-heterosexual orientations” to avoid “disrupting group harmony” (Li et al., 2020). Third, limited access to gay and lesbian education exacerbates prejudice—only 15% of local universities include gay and lesbian topics in mental health curricula, leaving students with limited knowledge to challenge stereotypes (Sa et al., 2021).

Ethnic background introduces further variations in attitudes (Mallett et al., 2008). Han Chinese students, influenced by mainstream Confucian norms, often link gay

and lesbian identities to “moral deviance” (Xu et al., 2022). Tibetan students, shaped by Buddhist teachings on “family continuity” and pastoral communal living, show higher levels of avoidance toward gay and lesbian peers—45% reported “uncomfort discussing same-gender relationships” (Wang et al., 2020). Tujia and Miao students, with traditions emphasizing group conformity, reported 12–15% higher discomfort in interacting with gay and lesbian classmates compared to Han Chinese students (Li et al., 2020). Empirical data confirms these gaps: (Wang et al., 2020) found Southwest Chinese college students had an average gay and lesbian tolerance score of 21.9 (out of 100), with minority students scoring 8–12 points lower than Han Chinese students.

2. Homophobia

2.1 Definition

Fear, aversion, discomfort, or mistrust towards gender minorities (lesbian, gay, transgender, or bisexual) can be characterized as prejudice against sexual and gender identities (Sánchez-Sánchez et al., 2024). While acceptance of gay and lesbian has grown in recent decades, evidenced by increased recognition of same-gender marriage and LGBTQ rights (Poushter & Kent, 2020), prejudice remains a significant societal hurdle. Notably, legal recognition of gay and lesbian varies greatly across the globe (e.g., legal in many Western nations, not in most of Africa and Asia).

The term “homophobia” originated with Jewish-American psychologist Weinberg in the 1960s (Grimes, 2017). Derived from the Greek word “phobos” meaning “fear” or “disgust”, it signifies a complex aversion (Plummer, 1999). Homophobia is fueled by a combination of negative attitudes, emotions, and deeply held values informed by religious, political, and cultural backgrounds. These factors can include prejudice, ignorance, fear, and general disapproval of non-heterosexual identities. Undoubtedly, ingrained societal beliefs regarding heterosexual often shape negative attitudes towards sexual and gender minorities.

Homophobia, defined by negative attitudes and behaviors towards sexual minorities (Fraïssé & Barrientos, 2016; Hässler et al., 2021; Herek, 2009), manifests through social stigma (e.g., promiscuity stereotypes)(Rice et al., 2022) and

pathologization (e.g., linking same-gender attraction to mental illness) (Gereš et al., 2021; Klein et al., 2019; Kraus et al., 2016; Pinsof & Haselton, 2016). Salvati & Koc (2020) highlight the need to combat homophobia and elevate the social standing of LGBTQ individuals.

Within the gay and lesbian community, experiences of discrimination and bullying (homophobia) can contribute to psychological distress and stress-related illnesses, including suicidal ideation (Jaspal et al., 2021; Sutter & Perrin, 2016; Walls et al., 2019). Gay and lesbian individuals are especially susceptible to the negative effects of everyday discrimination based on sexual orientation, leading to internalized homophobia (Fattoracci et al., 2021). In China, the intersection of sexual bias and cultural norms may further marginalize gay and lesbian students, increasing their risk to mental health challenges. Notably, research on the "same-gender attraction stress" theory, particularly concerning gay, lesbian students in China, is scarce. Additionally, studies exploring bullying in colleges and its connection to mental health issues like depression, anxiety, and stress symptoms remain limited (Sun et al., 2021; Zheng et al., 2020).

In this study, homophobia refers to the stereotypes or negative attitudes and behaviors of heterosexual groups toward gays and lesbians, as well as the resulting exclusion, prejudice, discrimination against gay and lesbian people.

2.2 Measurement

The Homophobia Scale (HS) selected for this experimental study (Wright et al., 1999). This 25-item, three-dimensional scale (cognitive, behavioral, emotional) utilizes a 5-point Likert scale and has demonstrated good reliability in prior research conducted in the United States, Italy, and other countries.

The Homophobia Scale was chosen specifically because it aligns with the current investigation's focus on explicit homophobia, including behavioral responses and irrational fear towards same-gender attraction behavior (versus implicit homophobia). The scale offers a comprehensive assessment by capturing participants' fears (heterosexual, gay and lesbian) regarding the gay and lesbian behavior of others

across cognitive, emotional, and behavioral domains. Notably, Homophobia Scale taps into three key factors of homophobia: negative cognition, negative avoidance, and passive aggression. Furthermore, the scale's established internal consistency and test-retest reliability solidify its effectiveness in assessing homophobia.

This study underscores the Homophobia Scale as a carefully constructed and through experience validated instrument for comprehensively evaluating an individual's homophobia across cognitive, affective, and behavioral domains. Its execution not only facilitates a complex understanding of the multifaceted nature of homophobia but also furnishes clinicians with a valuable assessment tool. Consequently, the Homophobia Scale emerges as a dependable, reliable, and practical measure, holding significant implications for both research and intervention efforts directed towards homophobia.

3. Ally Identity

3.1 Definition

The concept of "ally" has been traditionally defined as "a person from a dominant or majority group who works to end oppression in their personal and professional life by supporting and advocating for an isolated population" (Washington & Evans, 1991). However, recent critiques point towards potential limitations within this definition.

Firstly, allies' identities are often considered normative, reflecting prevailing social norms (Anderson & Accomando, 2016). This normative positioning can grant them "compound privileges", offering them flexibility in expressing their allyship. Furthermore, allyship can potentially stagnate, becoming a static state rather than a continuous process of growth and action (Ji & Fujimoto, 2013).

Secondly, the term "ally" has been critiqued for becoming a per formative label, particularly amongst self-identified progressive members of dominant groups (Anderson & Accomando, 2016). Adopting the "ally" label may serve as a deflection mechanism, drawing attention away from one's own privileges, especially during interactions with isolated groups.

It is important to acknowledge that allies are not solely limited to dominant groups. Individuals with some degree of authority within the social structure can also function as allies (Bourke, 2020). The effectiveness of allyship can be influenced by an ally's position within the social system, with those holding power and privileges potentially having a greater impact. Perceptions of allyship may be contingent upon the specific identities of both the ally and the target group.

Being a gay and lesbian ally involves explicitly acknowledging and supporting the identities of individuals within the LGBTQ community. This support extends to heterosexual and cisgender individuals who advocate for equal civil rights, gender equality, and LGBTQ social movements (Poteat et al., 2018). Allyship necessitates challenging biased language and behaviors within society (Asta & Vacha-Haase, 2013; Ji & Fujimoto, 2013). Research suggests that Gay-Straight Alliances (GSAs) in colleges positively impact the academic performance and social well-being of LGBTQ students (Baams et al., 2020; Lessard et al., 2020). Allies can be viewed as proactive agents of social change, actively confronting discriminatory institutions and promoting social justice for LGBTQ individuals (Poteat et al., 2018). Furthermore, identifying as an ally signifies active participation in this ongoing alliance (Anderson & Accomando, 2016).

This study explores the concept of gay and lesbian ally within educational environments of universities in Southwest China. Allies, defined by their ongoing efforts to dismantle oppression through supporting isolated groups and advocating for their rights, represent a crucial aspect of social justice initiatives. While the term "ally" has become increasingly prevalent, particularly among those identifying as progressive, perceptions of allyship often focus on specific identity groups. In the context of this research, allyship primarily refers to supporting gay and lesbian individuals and challenging biased language and behaviors. This study supposes that the presence of gay and lesbian ally within colleges positively impacts the academic achievement and social well-being of gay and lesbian students, playing a significant role in fostering a more just learning environment.

3.2 Measurement

Most early ally studies were conceptual, small-scale, and qualitative, with none being quantitative. In this study, the Ally Identity Measure (AIM) was adopted (Jones et al., 2014).

This measure was developed by Jones et al (2014). to assess the degree to which an individual demonstrates the behaviors and attitudes of an ally to the LGBTQ community (Jones et al., 2014). AIM has been used in two other studies to date. Bristol et al. (2018) used AIM to assess the ability of emergency healthcare workers to act as allies before and after LGBTQ training opportunities. Their findings showed that scores on all scale of LGBTQ competency increased after training opportunities (Bristol et al., 2018).

Casazza et al. (2015) built upon prior research (Jones et al., 2014) to explore regional variations in heterosexual individuals' attitudes and behaviors toward bisexual people. Their findings indicated statistically significant differences across geographic regions, with participants from rural backgrounds exhibiting greater heteronormativity and lower bisexual acceptance (Casazza et al., 2015).

The selection of the specific instrument (AIM) was justified for several reasons. First, the instrument's development (Jones et al., 2014) was grounded in the Getz-Kirkley model (Getz & Kirkley, 2003), incorporating key elements of ally identity development relevant for survey design, such as the concept of "privileged exploration". Second, AIM encompasses various aspects pertinent to ally identity development and behavioral patterns, including knowledge, awareness of oppression, and openness/supportive actions (Jones et al., 2014). This multidimensional assessment allows for pinpointing specific ally development activities with the strongest links to ally identity formation. Finally, a key consideration in choosing AIM was its creators' intention for it to be applicable to large-scale quantitative studies aiming for population-level generality (Jones et al., 2014), aligning perfectly with the current investigation's goals.

The assessment of intercultural alliances (AIM) score is calculated as a continuous integer, with higher scores indicating stronger alliance development (Jones

et al., 2014). Each AIM item is a statement centered on key alliance constructs, such as knowledge and skills, openness and support, and awareness of oppression (Jones et al., 2014). These items assess alliance strength across various dimensions.

The Ally Identity Measure (AIM) signifies a shift in LGBTQ research on ally identity and behavior from qualitative methods to systematic quantitative approaches. This transition facilitates a more accurate understanding and evaluation of ally behavior development and its influencing factors, laying a stronger foundation for future research.

Furthermore, the AIM underscores the need for a multifaceted and overall perspective when examining ally behavior in identity research. This comprehensive approach sheds light on the complicated nature and variations within allied identity development.

4. Intergroup Dialogue Learning Program

4.1 Definition of Intergroup Dialogue

Intergroup dialogue originated at the University of Michigan in 1988 as a structured intervention approach for addressing intergroup tensions. Its core definition refers to a facilitated, face-to-face experience that brings together 12-18 participants from two or more distinct social identity groups (e.g., based on sexual orientation) in roughly equal numbers. This balanced representation is deliberate, aiming to create conditions for equitable interaction. The format consists of 8-12 structured sessions (each 45-60 minutes, held weekly), guided by skilled professionals, with an educational curriculum integrating cognitive, emotional, and behavioral learning dimensions.

At its heart, intergroup dialogue prioritizes meaningful exchange over debate or discussion. The focus is on exploring identity, intergroup differences, and social inequality through personal reflection and critical conversations—with the goal of deepening mutual understanding rather than achieving consensus (White et al., 2019; Zúñiga et al., 2002). For instance, sessions emphasize distinguishing dialogue from competitive forms of communication, examining how social identities shape individual experiences, and unpacking privileges or oppressions tied to group memberships. Its

fundamental purpose is to build positive intergroup relationships through authentic interaction across differences (Çakal et al., 2021; Zúñiga et al., 2007).

Core theoretical frameworks are required to guide design decisions for adapting this “prototype” of intergroup dialogue into a targeted intervention. The intervention aims to reduce homophobia and enhance ally identity among college students in Southwest China. These frameworks clarify why intergroup interaction reduces prejudice. They also explain how attitudes toward gay and lesbian change through dialogue.

4.2 Theories Related to Intergroup Dialogue Learning Program

4.2.1 Intergroup Contact Theory

Social scientists’ interest in intergroup contact emerged in the mid-20th century (Watson, 1947). This focus aligns with social psychology’s core concern with intergroup relations and how interactions unfold within social contexts.

Intergroup contact theory, a cornerstone of social psychology, posits that direct interaction between members of distinct groups fosters reduced prejudice and improved intergroup relations (Allport, 1954). Gordon Allport, in his seminal 1954 book. The nature of prejudice first proposed this theory. Allport contended that interactions between in-group and out-group members (in-groups referring to individuals categorized by a shared characteristic, like race; out-groups referring to those not belonging to the in-group within that specific category) challenge prejudice. Prejudice, according to Allport, stems from inaccurate generalizations about out-groups, often fueled by a lack of direct contact. When individuals have direct contact with out-group members, they are more likely to see them as individuals and identify similarities, potentially leading to a decrease in prejudiced attitudes and discrimination directed towards the out-group as a whole.

Allport’s intergroup contact hypothesis centers on the idea that contact with out-groups under optimal conditions is the primary means to reduce intergroup bias. He identified several key conditions for effective intergroup contact: equal status between

groups, a shared goal requiring cooperation, intergroup cooperation itself, approval by authorities, and legal support (Allport, 1954).

Research consistently demonstrates that intergroup contact reduces isolation and fosters trust between individuals from different backgrounds, including age, race, nationality, and mental health status (Gao & Ng, 2021; Pettigrew & Tropp, 2006; Thornicroft et al., 2016). Successful intergroup contact is also linked to improved knowledge, attitudes, and behavioral tendencies towards outgroups (Bagci et al., 2020).

Recent scholarship has expanded the theory beyond direct (face-to-face) contact to encompass indirect forms such as imaginary contact (Crisp & Turner, 2012) and electronic interactions (White et al., 2021). This expansion has led to a growing research focus on the effectiveness of indirect contact (White et al., 2021) and the potential for generalization of positive outcomes (Boin et al., 2021). Additionally, research explores factors influencing the pursuit of intergroup contact, such as intergroup anxiety, perceived threat, past contact experiences, and structural barriers like segregation (Boin et al., 2021).

Interestingly, direct contact can positively influence perceptions of outgroups even among individuals who do not directly participate in intergroup interactions (White et al., 2021). This phenomenon, known as the secondary transfer effect, suggests that positive experiences can be projected outwards, benefiting not only the encountered outgroup but also other outgroups (Boin et al., 2021). Furthermore, recent studies investigate the underlying mechanisms of intergroup contact, including the role of emotions such as happiness, anger, and anxiety (Reimer et al., 2021; van Zalk et al., 2021; Wang et al., 2022).

One study explored the factors influencing support for social change among advantaged groups on behalf of disadvantaged groups, particularly the motivations driving advantaged group members' engagement in such action, including outgroup-focused motivations, ingroup-focused motivations, personal motivations, and morality motivations (Radke et al., 2020). Evidence suggests that intergroup contact fosters a more inclusive social identity (Di Bernardo et al., 2021; Reimer et al., 2017;

2022), which in turn may motivate advantaged group members to advocate for disadvantaged groups (Kunst et al., 2018; Reimer et al., 2017). Furthermore, emotional responses such as heightened guilt and empathy towards disadvantaged groups (Mallett et al., 2008; Selvanathan et al., 2018) alongside reduced anxiety and bias (Smith et al., 2013) likely play a role in these decisions. Additionally, cognitive factors like perspective-taking (Çakal et al., 2021) are likely relevant. Positive intergroup contact experiences seem to be particularly effective in increasing support for social change and promoting greater equality among group members (Hässler et al., 2021).

Earlier research has yielded growing insights into the factors influencing the effectiveness of intergroup interventions (Pettigrew & Tropp, 2006). Notably, Pettigrew and Tropp (2006) challenge the notion that all of Allport's (1954) optimal conditions are essential for positive intergroup contact outcomes. Aligned with this perspective, other studies highlight the quality of interaction as a key determinant (Fuochi et al., 2020; Merrilees et al., 2018). Marinucci (2021) further emphasizes the role of close and meaningful contact in fostering trust, support, and cooperation, ultimately improving intergroup relations. Research suggests that interactions between heterosexual and same-gender attraction individuals that move beyond sexual orientation and focus on shared personal characteristics (e.g., personality, attitudes, emotions, behaviors) can lead to reductions in prejudice (Ramasubramanian et al., 2020).

Furthermore, intergroup interactions may not always yield positive outcomes. For instance, contact under conditions of unequal status or competition can exacerbate bias. Research suggests that superficial negative contact is particularly detrimental to intergroup relations, even more so than superficial positive contact (Schäfer et al., 2021). Moreover, there is evidence that contact with members of a majority group appears to inhibit the willingness of members of a minority group to campaign on their behalf (Hässler et al., 2021).

Using intergroup contact theory, this study explores the potential of intergroup dialogue learning programs to reduce bias and enhance intergroup relations. This study will apply this theory to the design and execution of intergroup dialogue

learning programs. This study will apply this theory to the design and execution of intergroup dialogue learning programs as follows:

Equal Status between Groups: The program will ensure that all participants are engaged in an equal footing. Equality between groups is crucial for fostering a sense of mutual respect and understanding.

A Shared Goal Requiring Cooperation: Establishing shared goals for the dialogue can facilitate a sense of cooperation and interdependence among participants. When group members work together towards a common goal, it can help to break down barriers and foster a sense of unity.

Intergroup Cooperation Itself: Interactive activities will be designed to promote mutual understanding and trust. It requires all members in group to work together. These activities will emphasis on achieving a collective outcome through cooperation.

Approval by Authorities: The program will be underpinned by the support of university authorities, such as educational institution leaders, community figures, or subject matter experts.

Legal Support: This program will comply with relevant laws and policies, including anti-discrimination laws and equal rights in education. This can in compliance with the law and that all participants understand their rights and responsibilities.

By integrating these elements into the design of intergroup dialogue learning programs, practitioners can leverage the power of intergroup contact theory to not only reduce bias but also to build bridges between different social groups, fostering a more inclusive and harmonious society. The program's success will depend on the thoughtful application of these principles and a commitment to creating a space where open, honest, and respectful dialogue can thrive.

4.2.2 Social Constructivism Theory

Social constructivism theory, pioneered by Vygotsky (1978), emphasizes the role of language and culture in shaping human experience, communication, and understanding of the world. Vygotsky proposed that these sociocultural factors influence

cognitive development and environmental perception. Through language transmission, individuals interpret and internalize concepts based on their experiences and cultural contexts. Knowledge construction is inherently social, requiring a shared language and cultural background within a group. Social constructivism view knowledge acquisition as a collaborative process involving students, teachers, and peers (Mohammed & Kinyo, 2020). This perspective aligns with cognitive constructivism's emphasis on collaborative learning, both with instructors and fellow learners (Merrilees et al., 2018). Merrilees (2018) defines potential growth (i.e., academic achievement) as the level attainable with support from educators or peers. His view positions learning as a fundamentally social activity involving interaction with peers, family, acquaintances, and even historical figures. Social constructivism theory posits that dialogue, collaboration, and information utilization are central components of learning and achieving learning objectives.

Social constructivism theory emphasizes the significance of social interaction for both cognitive development and lifelong personality formation (Wertsch, 1979). Learners can achieve tasks beyond their current capabilities through collaboration with more knowledgeable peers or adults (Rogoff, 1990). This collaborative approach fosters a supportive learning environment where students can build knowledge alongside teachers and classmates (Aljohani, 2017).

Social constructivism theory, a pedagogical approach aligned with Vygotsky's theory, prioritizes student participation, discussion, and knowledge sharing (Fosnot, 1996). This method facilitates diverse student groupings and interactive strategies, such as class conversations, small group discussions, and student-led projects focused on specific topics (Watson, 2001). Through these interactions, students collaboratively exchange ideas, brainstorm solutions, and explore cause-and-effect relationships, ultimately deepening their understanding and constructing new knowledge (Al-Qaysi et al., 2021).

Grounded in social constructivism theory, learners actively construct knowledge by integrating new concepts and ideas with their existing frameworks

(Fosnot, 1996). Dewey (1938) emphasized education as a dynamic process, contrasting passive reception with active engagement in knowledge transformation and evaluation.

The educator imparts theoretical and conceptual knowledge to the learner, while the individual gains knowledge from his life experience. In contrast, learners acquire academic knowledge by drawing on previous experiences to enrich their learning experience, understanding and interpreting the meaning of the acquired knowledge. Therefore, learning is the result of learners' real-life experiences. Learning is a social activity, and society, relationships, and communication with community members all help to instill learning in people. Culture, language, and other social norms and beliefs all help people learn. Learners benefit from emotional and strong support from the community, which enables them to face challenges and take control of their learning.

All parts of the learner are interconnected, and social interaction is essential for acquiring knowledge, but so are attitudes, emotions, values, and behaviors. The relationship between human behavior and body, namely knowledge, pleasure, ethics, aesthetics. Knowledge is related to popular culture; Both are used to provide insight, guidance and enhance one's life.

Following Dewey and Piaget's emphasis on collaborative learning environments, educators should strive to foster a sense of learner agency and respect for diverse perspectives (Rannikmäe et al., 2020). This can be achieved by valuing learners' unique experiences, thoughts, and interpretations (e.g., ideas, concepts, impressions, opinions). Educational institutions should promote a culture of mutual respect for individual viewpoints, creating a foundation for learners to co-construct their understanding of reality (Rannikmäe et al., 2020).

Drawing on social constructivism theory (Vygotsky, 1978), the intergroup dialogue learning program emphasizes the co-construction of knowledge through social interaction. This approach encourages active participation and knowledge sharing among participants, fostering a process where individual and societal levels of understanding are interwoven. Through dialogue and discussion, participants challenge

existing assumptions and perspectives on same-gender attraction, potentially leading to re-framed cognition and more inclusive viewpoints. The program's structure aligns with the role of educators as facilitators, guiding and supporting participants as they guidance this trans-formative learning experience.

The prototype of intergroup dialogue and core theoretical frameworks are clarified. Intergroup Contact Theory focuses on equal, cooperative interaction. Social Constructivism Theory emphasizes socialized cognitive change. The core intervention of this study can now be defined. It is the Intergroup Dialogue Learning Program.

4.3 Definition of Intergroup Dialogue Learning Program

This study builds on the original intergroup dialogue framework by integrating Intergroup Contact Theory (Allport, 1954) and Social Constructivism Theory (Vygotsky, 1978) to develop the Intergroup Dialogue Learning Program—an educational model tailored for reducing homophobia and enhancing ally identity among college students in Southwest China.

From the perspective of Intergroup Contact Theory, which posits that direct, equal-status interaction reduces intergroup prejudice (Allport, 1954), the program embeds the theory's core principles into its design. The balanced number of participants from different social identity groups ensures "equal status", a key condition for positive contact; structured sessions (e.g., collaborative reflection, shared discussion) foster intergroup cooperation; and facilitation by skilled professionals provides the supportive context needed for productive exchanges. This alignment ensures dialogue serves as a purposeful tool for challenging stereotypes (Zúñiga et al., 2007).

Guided by Social Constructivism Theory, which emphasizes that knowledge and identity are constructed through social interaction (Vygotsky, 1978), the program deepens its educational focus. It moves beyond simple contact to prioritize critical reflection: participants explore how socialization processes (e.g., family, media, campus culture) shape their understanding of sexual orientation and related attitudes. Through activities like identity exploration and reflective discussions, participants recognize that

homophobic beliefs are not innate but socially constructed—encouraging them to co-construct more inclusive perspectives through dialogue (Zúñiga et al., 2002).

In higher education contexts, this integrated program adapts the semi-structured critical dialogue model (Sorensen et al., 2009; Zúñiga et al., 2007) into a five-session framework (one session per week, 90 minutes each) to better support learning retention and action translation, with each session aligned to both theories.

Unlike the original intergroup dialogue, the Intergroup Dialogue Learning Program's five-session design emphasizes sustained learning and actionable outcomes: it equips students with the knowledge, skills, and confidence to identify and challenge homophobia, aligning with critically multicultural education and justice-centered pedagogy (Morales-Doyle, 2017). Research supports its effectiveness, with participation linked to reduced prejudice and increased intergroup understanding (Frantell et al., 2019). For this study, the program draws directly on Zúñiga et al.'s (2007) framework from Intergroup Dialogue in Higher Education, tailored to the cultural context of Southwest China to enhance relevance and long-term impact.

The Intergroup Dialogue Learning Program and its theoretical foundations are defined. Attention now turns to its practical implementation. The five-session process is detailed. This process operates theories. It aims to reduce homophobia. It also enhances ally identity.

4.4 Intergroup Dialogue Learning Program Process

The intergroup dialogue learning program selected for this study is based on research presented in Intergroup Dialogue in Higher Education (Zúñiga et al., 2007). According to Zúñiga et al.'s (2007), the intergroup dialogue learning program integrates three core educational goals: raising awareness, building relationships across differences and conflicts, and strengthening individual and collective capacities to promote social justice. The intergroup dialogue learning program uses four design elements to construct learning in intergroup dialogue: (1) continuous and intimate participation across differences; (2) a clear focus on process and content issues; (3)

deliberately choosing structured activities and dialogue methods to support content and process; (4) the order of dialogue and learning.

While Zúñiga et al.'s (2007)'s original research divided the intergroup dialogue learning program into four sessions, this study adapts and expands it into a five-session framework (one session per week, 90 minutes per session) to better align with the learning needs and cultural context of Chinese university students in Southwest China. This five-session design retains the core logic of Zúñiga et al.'s (2007)'s framework while enhancing the continuity of learning, the depth of reflection, and the translation of knowledge into action—ultimately optimizing teaching effectiveness and learning outcomes. The detailed content of each session is as follows:

Session 1: Group Beginnings: Forming and Building Relationships

This session focuses on creating a safe and supportive environment for open communication, fostering dialogue group formation and trust among participants with diverse social identities (e.g., heterosexual, gay, lesbian). Facilitators guide participants through an overview of the program, collective development of group agreements (such as confidentiality and non-judgment), exploration of personal and social identities alongside discussions on "Why discuss homophobia?", training on distinguishing dialogue from debate, and practice of basic dialogue skills like active listening. At the end, participants reflect on workbooks and rate their homophobia on a 0-10 scale to establish a baseline.

Session 2: Exploring Differences and Commonalities of Experience

Centered on exploring shared and distinct identity-based experiences, this session deepens intergroup trust and awareness of identity disparities. Participants engage in "Cultural Treasure Chest" (sharing identity-representative items and stories) and "Fishbowl" (inner circle discussion on homophobia-related topics with outer circle listening and subsequent role-swapping) activities. These help participants from privileged and disadvantaged positions recognize how power structures shape homophobia experiences. Afterward, participants reflect in workbooks and re-rate their homophobia to track initial attitude shifts.

Session 3: Exploring and Dialoguing About Hot Topics

This session facilitates constructive dialogue on contentious homophobia-related issues. It starts with guiding participants to share personal experiences tied to homophobia to ground the discussion, followed by the "Gallery" activity (writing and discussing views on hot topics like campus LGBTQ+ support groups) and "Dialogue About the Dialogue" (reflecting on communication processes to improve interaction quality). Participants then reflect in workbooks and re-rate their homophobia to assess how engaging with hot topics influences their attitudes.

Session 4: Action Planning and Alliance Building

Focused on translating learning into action, this session guides participants to develop individual and small-group action plans to address homophobia (e.g., correcting homophobic remarks) and set achievable timelines. Small groups also assign action roles to clarify responsibilities, with facilitators providing guidance on overcoming challenges. The session ends with facilitators summarizing key points and thanking participants, while participants reflect in workbooks and rate their homophobia to capture shifts in sense of agency.

Session 5: Feedback on Group Development

Held one week after Session 4, this session reviews action plan progress (with participants sharing implementation experiences and challenges), collects program feedback (discussing strengths and areas for improvement), and administers post-tests using the Homophobia Scale (HS) and Ally Identity Measure (AIM) to quantify attitude and identity changes. Facilitators summarize group growth, acknowledge participants' efforts, and outline data analysis next steps, ensuring comprehensive assessment of the program's initial effectiveness.

While Zúñiga et al.'s (2007) original four-session framework provides valuable guidance, this study's five-session design is intentionally flexible rather than rigid. From a pedagogical standpoint, the design aligns with the natural learning process of Chinese university students—prioritizing relationship-building before complex dialogue, and action before reflection—to enhance engagement and retention. Practitioners

implementing this program may also adapt specific topics or activities to suit the unique dynamics of their group (e.g., adjusting hot topics to address regional cultural norms in Southwest China) or participants' particular needs (e.g., adding more emotional support exercises if participants express high anxiety about identity discussions). This responsiveness and adaptability ensure the program remains relevant and effective for the target population.

The program's practical process is detailed. Existing research is reviewed to validate its rationale. This research provides empirical support for intergroup dialogue learning program's effectiveness. It improves homophobia and ally identity. It also contextualizes the program's scholarly value.

4.5 Research Related to Intergroup Dialogue Learning Program to Improve Homophobia and Ally Identity

Intergroup dialogue learning programs promote self-awareness by encouraging participants to explore their multifaceted identities and their interconnection. One unique aspect of these programs involves focusing on a specific identity, such as sexual orientation, and fostering intentional dialogue about group differences. This focus on sexual orientation awareness, skill development, and action can contribute to a more inclusive campus environment for gay and lesbian students and a reduction in heterosexism and homophobia.

Previous research has explored the impact of interventions aimed at improving gay and lesbian inclusion. Dessel et al. (2011) investigated a camp-based conversation course focused on sexual orientation from the perspective of participating gay and lesbian students. Their findings indicated that participation in such courses effectively reduced prejudice against same-gender attraction and fostered a more welcoming campus climate for the gay and lesbian community. Supporting these findings, Hui$\acute{c}$ et al. (2016) demonstrated a correlation between decreased contact with gay and lesbian individuals and increased discriminatory attitudes. Similarly, Burford et al. (2017) conducted a study where teenagers participated in a 60-minute workshop on gender diversity. The results revealed a notable increase in participants' understanding and

appreciation of gender diversity, including identities like same-gender attraction (Burford et al., 2017). These studies collectively highlight the potential of intergroup dialogue learning programs to cultivate a more inclusive campus environment that celebrates sexual and gender diversity.

The qualitative study involving sexual orientation explored the motivations, expectations, challenges, and learning outcomes of heterosexual students participating in an intergroup dialogue learning program on sexual orientation and discussed implications for intergroup dialogue learning program and research (Dessel et al., 2013). Participants overall said that although they were products of a society that socialized them with stereotypes, fears, and a lack of information about gay and lesbian people, they were willing to learn about the oppression experienced by gay and lesbian people and the results of the undeserved privileges that heterosexuals (including themselves) received in society. Participants generally gained a great deal of knowledge about heterosexual privilege and also provided research implications for reducing homophobia.

A qualitative approach centered on in-depth qualitative interviews with 16 former intergroup dialogue learning program students at the State University of New York, in which the results of the intergroup dialogue learning program showed that gay and lesbian and heterosexual students promoted mutual understanding through the intergroup dialogue learning program (Crista, 2021). Gay and lesbian rights are also understood and supported, and the intergroup dialogue learning program has a lasting impact on participants' lives after their participation in the program (Crista, 2021). A hybrid design that examined the effect of intergroup contact in an educational setting on reducing bias against the gay and lesbian community among heterosexual students showed that different forms of negative feelings about gay and lesbian were mitigated (Cramwinckel et al., 2021). Another mixed approach examined the relationship between online exposure to gay and lesbian related content and direct exposure to gay and lesbian. Research has found that online quasi-social contact promotes offline and online social interaction with members of the gay and lesbian community, which is positively

correlated with attitudes of the gay and lesbian community, providing insights into reducing homophobia in society (Lissitsa & Kushnirovich, 2020). Robinson et al. (2020) implemented an intergroup dialogue learning program in a South African university setting to address gender and sexuality issues, enabling students to critically reflect on their assumptions and biases related to gender and sexual orientation. The study highlights how the intergroup dialogue learning program, by challenging students to critically examine their beliefs and assumptions, creates a safe space for students to engage in open discussion, reflect on their own biases, and speak up for isolated communities, A student-led advocacy group for gay and lesbian rights was formed. Another study brought together seven young participants with different social group identities from six countries to organize intergroup dialogue learning program groups and conduct phenomenological analysis. Discover that intergroup dialogue learning program is a critical dialogue that addresses gender and sexual orientation fears (Kachadoorian, 2020). In an intergroup contact study involving 122 undergraduates in Beijing, China, it was found that conditional direct contact and imaginary contact significantly improved heterosexual college students' attitudes toward gay and lesbian. In addition, there were significant biological gender differences in college students' attitudes toward gay and lesbian. Women's attitudes toward gay and lesbian were better than men's, and lesbians' attitudes were better than men's (Guo & Liu, 2021).

The new finding is that advocacy of gay and lesbian issues is associated with higher fine discrimination among people with little or no contact with the gay and lesbian community, regardless of the contact's sexual orientation (Lissitsa & Kushnirovich, 2020).

Using the extended access hypothesis, heterosexual allies may be more impactful in reducing prejudice compared to gay and lesbian advocates themselves. This implies that allies can be more effective agents of change than uninvolved heterosexual individuals. Individuals who remain passive or fail to self-identify as allies can't serve as role models for inclusive behavior (Hodson et al., 2016).

Supporting this notion, a study examining American undergraduate multicultural courses with intergroup dialogue learning program components utilized a split-graph analysis of variance. The results revealed that students engaged in intergroup dialogue learning program exhibited greater increases in empathy and ally-related behaviors over the semester compared to those in courses without such programs (Schmidt et al., 2020). Furthermore, intergroup dialogue learning program participation fostered students' empathic engagement and motivation to act as allies across identity differences. A review of recent intergroup dialogue learning program research confirms its positive influence on the development of a gay and lesbian ally identity (Frantell et al., 2019). Additionally, a survey of 353 heterosexual college students on their ally identity found a positive correlation between intergroup contact and their positive feelings and understanding towards the gay and lesbian community. This contact also facilitated the formation of positive ally relationships (Knepp, 2022).

Although research suggests the intergroup dialogue learning program as a promising educational strategy to enhance social attraction and decrease sexual orientation bias. However, some research indicates that incorporating multicultural curriculum learning within intergroup dialogue learning program might have unintended consequences, potentially lowering participants' confidence in social justice action (Crista, 2021). These findings highlight the multifaceted nature of intergroup dialogue learning program effectiveness, influenced by curriculum design, delivery methods, and participant engagement.

To maximize intergroup dialogue learning program's potential, careful planning and adjustments to design and execution are crucial. Alterations the program to participants' cultural backgrounds and needs is essential. Additionally, incorporating diverse teaching methods and reliable evaluation mechanisms can further enhance intergroup dialogue learning program effectiveness in fostering mutual understanding and respect among participants.

5. Research and Development (R&D) Methodology

5.1 Definition of R&D Methodology

Research and Development (R&D) is a systematic, iterative methodological framework designed to develop, refine, and evaluate context-adaptive tools and interventions—prioritizing empirical validation and user-centered feedback to ensure alignment with local cultural, social, and demographic realities (Borg & Gall, 2003; Di Bernardo et al., 2021). Unlike traditional experimental designs that focus on causal inference and generalizability, R&D is distinguished by its emphasis on practical fit: it integrates input from target populations to address cultural mismatches often associated with Western-developed interventions when applied to non-Western contexts (Richey & Klein, 2014).

At its core, R&D methodology bridges theoretical rigor and real-world applicability. It is defined by three key characteristics: (1) cyclical refinement, where each phase builds on feedback from the previous one; (2) context sensitivity, prioritizing cultural and contextual relevance over one-size-fits-all solutions; and (3) dual focus on process and outcome, ensuring both the intervention's design and its effectiveness are validated empirically (Borg & Gall, 2003). For prejudice reduction research—where bias is deeply shaped by cultural norms and socialization—these characteristics make R&D uniquely suited to developing interventions that resonate with target populations and produce sustained change.

5.2 Process of R&D Methodology

The R&D process follows a structured, sequential framework with iterative feedback loops, typically consisting of three core phases (Borg & Gall, 2003; Richey & Klein, 2014):

Phase 1: Needs Assessment and Tool Adaptation/Validation

This initial phase focuses on identifying context-specific needs and ensuring measurement tools are culturally appropriate. Researchers conduct literature reviews, stakeholder consultations, and preliminary surveys to map gaps. A critical component is the adaptation and validation of measurement tools—ensuring scales capture local expressions of bias rather than relying on Western-centric constructs. For

example, Knepp (2022) began her R&D-based ally identity intervention with a survey of 353 heterosexual college students to identify key barriers to allyship, while validating the Ally Identity Measure (Jones et al., 2014) for her target population.

Phase 2: Intervention Design and Pilot Testing

In this phase, researchers translate needs into a prototype intervention, integrating theoretical frameworks with context-adaptive design elements. The prototype is then piloted with a small sample to collect quantitative data. Iterative refinement is central here: feedback from pilot participants is used to adjust content, format, or delivery to improve acceptability and effectiveness. Christina (2023) exemplify this step: after piloting a racial prejudice-reduction program for South Korean adolescents, they revised Western-focused "individual advocacy" modules to "group-based conflict resolution" activities—aligning with Confucian norms of group harmony.

Phase 3: Formal Evaluation and Scalability

The final phase involves rigorous evaluation of the refined intervention, often using mixed methods designs to assess both immediate and sustained effects. Researchers compare outcomes between intervention and control groups, while qualitative data explain how and why the intervention works. Successful interventions then undergo scalability planning—identifying resources, training needs, and adaptation guidelines for broader implementation. For instance, Knepp (2022) formally evaluated her ally intervention with 120 students, finding significant increases in AIM scores and self-reported ally behaviors, and outlined guidelines for adapting the program to different campus contexts.

5.3 Application of R&D Methodology in Prejudice Reduction Interventions

R&D methodology has been widely validated in prejudice reduction research, particularly for adapting interventions to diverse cultural and demographic contexts. Below are key empirical applications aligned with the current study's focus on homophobia and ally identity:

1. Cultural Adaptation of Prejudice Reduction Programs

Christina (2023) applied the three-phase R&D model to adapt a racial prejudice reduction program for South Korean adolescents—a population shaped by Confucian collectivism. In Phase 1, they validated implicit and explicit prejudice scales to capture local expressions of bias. Phase 2 involved revising Western-centric modules to prioritize group harmony, and Phase 3 evaluated the program with 120 students. Results showed a 28% reduction in explicit prejudice scores in the adapted intervention group, compared to an 11% reduction in the non-adapted control group—demonstrating R&D's ability to enhance effectiveness by centering cultural norms.

2. Development of Behavioral-Focused Ally Identity Interventions

Knepp (2022) utilized R&D to address a critical gap in ally education: programs often focus on knowledge acquisition but neglect behavioral action. Her three-phase process included: (1) a needs assessment identifying "behavioral uncertainty" as a key barrier; (2) a prototype intervention integrating role-play, LGBTQ+ peer storytelling, and action planning; (3) pilot refinement and formal evaluation with 120 students. The intervention produced a 40% increase in self-reported ally behaviors and a significant rise in AIM scores. Knepp (2022) attributed this success to R&D's user-centered design, which addressed participants' specific concerns rather than relying on generic allyship frameworks.

3. Adaptation of Measurement Tools for Local Contexts

A foundational application of R&D in prejudice reduction is the adaptation and validation of scales to ensure cultural relevance. (Jones et al., 2014) used R&D to develop and validate the Ally Identity Measure (AIM), a tool now widely used in cross-cultural research. Their process included: (1) defining ally identity constructs based on literature and stakeholder input; (2) piloting items with diverse samples to refine wording and relevance; (3) validating the scale with 480 participants, confirming its three-factor structure (Knowledge and Skills, Openness and Support, Oppression Awareness) and strong reliability (Cronbach's α=0.92). The AIM's development exemplifies how R&D ensures measurement tools capture the nuance of constructs like ally identity across contexts—critical for accurate intervention evaluation.

5.4 Relevance of R&D Methodology for the Current Study

For the current research, focused on reducing homophobia and enhancing ally identity among college students in Southwest China—R&D methodology offers distinct advantages. Southwest China's sociocultural context is shaped by collectivist norms, Confucian filial piety, and regional variations in gay and lesbian acceptance (Wang et al., 2020), making a one-size-fits-all Western intervention unlikely to succeed. R&D's three-phase process will:

1. Ensure measurement tools are adapted to local expressions of homophobia and allyship.

2. Develop an intergroup dialogue learning program that aligns with cultural values (e.g., collective harmony) and addresses context-specific barriers (e.g., pressure to conform to heteronormative family expectations).

3. Validate the intervention's effectiveness through iterative feedback and rigorous evaluation, ensuring it produces sustained change.

As demonstrated by Christina (2023) and Knepp (2022), R&D's focus on practical fit and user feedback is critical for developing prejudice reduction interventions that are not only effective but also acceptable and scalable in real-world settings like Chinese higher education.

6. Conceptual Framework

This study uses Research and Development (R&D) methodology, which follows a systematic process: analysis, design, development, implementation, evaluation (Piya & Niphitphon, 2022). It applies intergroup contact theory and social constructivism theory to develop a tailored intergroup dialogue learning program for solving practical problems related to reducing homophobia and increasing ally identity.

Key gaps in intergroup dialogue learning program research exist: (1) Most studies focus on reducing racial or ethnic prejudice, rather than measuring both homophobia and ally identity (Maxwell et al., 2011; Nagda et al., 2009); (2) Few have created culturally adapted scales or tailored programs that match the learning rhythms

of college students in Southwest China (Christina, 2023; Dessel et al., 2013). These gaps show the need for such tailored tools and interventions for this group.

Building on the theoretical foundation, the study employs an iterative research and development (R&D) process grounded in Borg & Gall (2003) to translate theory into a viable program and rigorously evaluate its impact, and guided by R&D steps, it adopts a three-phase sequential framework where each phase addresses a critical step in achieving the study's goals, the outputs of one phase directly inform the next: Phase 1 (analysis, development) validates the culturally adapted Homophobia Scale (HS) and Ally Identity Measure (AIM); Phase 2 (design, development) pilots and refines the tailored intergroup dialogue learning program; and Phase 3 (implementation, evaluation) assesses the program's effectiveness using a sequential explanatory mixed-methods approach.

Phase 1: Psychometric Validation Study

This phase adapted and validated two scales. The scales were the Homophobia Scale (Wright et al., 1999) and the Ally Identity Measure (Jones et al., 2014). Steps followed cross-cultural adaptation guidelines (Sousa & Rojjanasrirat, 2011). These steps included bilingual translation and cultural relevance review. They also included confirmatory factor analysis (CFA) with 609 local students (Sakunpong & Ritkumrop, 2021). This was consistent with sample size recommendation (Hair et al., 2010). Psychometric standards included CFI $\geqslant$ 0.9, RMSEA $\leqslant$ 0.08, and Cronbach's α $\geqslant$ 0.8 (Nunnally, 1978). This phase provided valid and reliable tools for Phase 2. It ensured the pilot test could assess the program's impact on homophobia and ally identity.

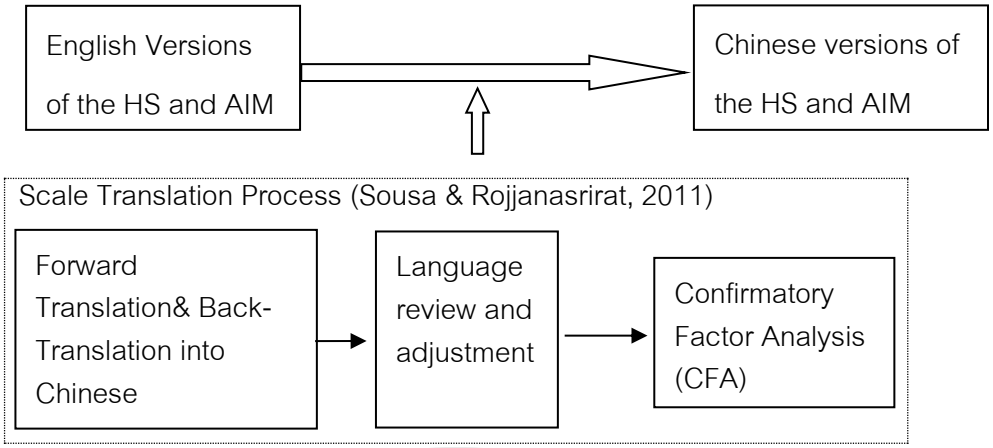

Figure 1 The Conceptual Model of Phase 1

Phase 2: Program Development and Pilot Testing

Using validated scales, a 5-session dialogue learning program is designed. It aligns with Zúñiga et al.'s (2007) intergroup dialogue framework and adapts to Chinese student learning rhythms, consistent with Christina (2023) cultural adaptation approach. A pilot test with 12 students (1:1 heterosexual-gay and lesbian ratio) is conducted, matching the sample size used in similar intergroup dialogue pilots (Dessel et al., 2013). The test assesses viability (session flow, engagement) and acceptability (focus group feedback). Pre-post HS and AIM scores show the program's initial impact on homophobia and ally identity. Pilot feedback, together with insights from Phase 1's scale validation, helps customize and revise the intervention process. This revision ensures the program fits the cultural context and works well in practice, providing the foundation for the final tailored program used in Phase 3.

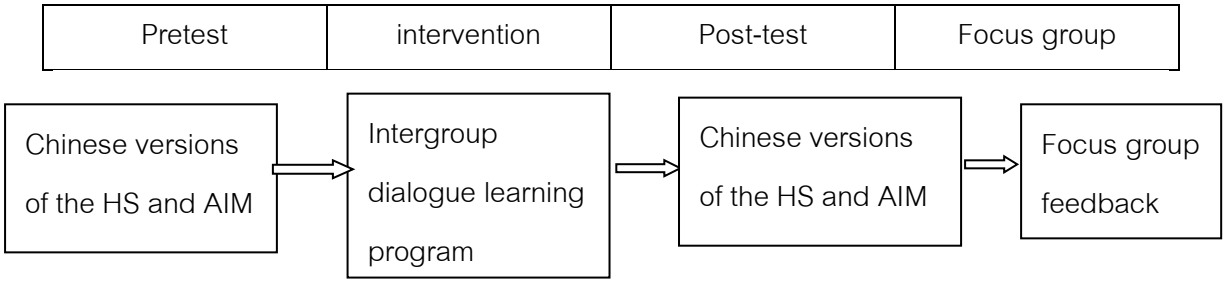

Figure 2 The Conceptual Model of Phase 2

Phase 3: Sequential Explanatory Mixed Method Design

This phase evaluates program effectiveness with 45 students: 30 in the experiment group and 15 in the control group. The sample size is powered to detect

medium-to-large effects with 80% power (Cohen, 1988). A pre-test-post-test-follow-up design is used (Nagda et al., 2009). The intervention group receives the tailored intergroup dialogue learning program. The control group engages in independent reading on gay and lesbian topics, consistent with sexual prejudice intervention control designs (Maru & Michael, 2019). Maru & Michael (2019) endorse the sequential explanatory design as the gold standard for such interventions. The design follows (Creswell & Creswell, 2017) foundational framework. Data collection includes quantitative HS and AIM scores and qualitative focus group discussions with 30 participants. Ivankova et al. (2006) justify this qualitative participant for explaining quantitative trends. Quantitative analysis uses two-way repeated-measures MANCOVA. It compares group differences in HS/AIM changes, controlling baseline scores (Pettigrew & Tropp, 2006). Qualitative analysis applies thematic analysis to focus group data (Ahmed et al., 2025; Braun & Clarke, 2006). This approach triangulates results and explains program mechanisms (Creswell & Creswell, 2017; Nancy, 2007). It mirrors methodological approaches in similar college student intergroup attitude studies (Nagda et al., 2009; Nancy, 2007).

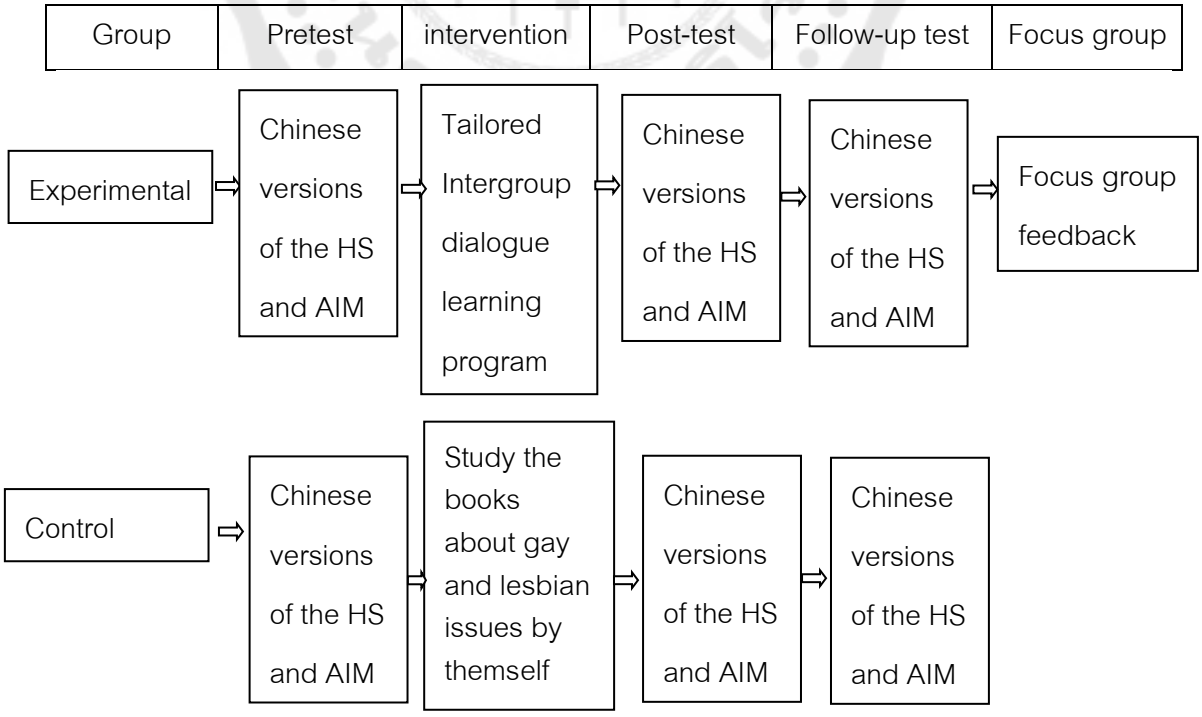

Figure 3The Conceptual Model of Phase 3

7. Hypothesis of the Study

H1: The Homophobia Scale (HS) (Wright et al., 1999) and Ally Identity Measure (AIM) (Jones et al., 2014) are expected to demonstrate acceptable internal consistency reliability and acceptable model fit in confirmatory factor analysis among university students in Southwest China.

H2: The pilot intergroup dialogue learning program led to a decrease in participants' homophobia scores (on the HS) and an increase in their ally identity scores (on the AIM) from pretest to post-test.

H3: The tailored intergroup dialogue learning program resulted in greater decreases in HS scores and greater increases in AIM scores among its participants relative to the control group following the program implementation. These group differences are expected to persist at follow-up.

CHAPTER 3
METHODOLOGY

Research and development (R&D) in education follows a systematic 5-step process: analysis, design, development, implementation, evaluation (Piya & Niphitphon, 2022). It uses theories and methods to solve practical problems by creating and testing tools or interventions suitable for the local context.

This study uses R&D methodology. It systematically applies intergroup contact theory and social constructivism theory to develop a tailored intergroup dialogue learning program. The goal is to reduce homophobia and Increase ally identity among college students in Southwest China. The study's three phases fit traditional R&D steps, as detailed below:

Phase 1: Psychometric Validation Study

This phase fits traditional R&D's analysis and development steps.

First, it analyzes two key gaps: (a) there are no culturally adapted scales to measure homophobia and ally identity for college students in Southwest China; (b) Western scales (HS, AIM) may not match local cultural norms.

Then, it develops Chinese versions of HS and AIM through forward-back translation and cultural adaptation. To confirm the scales' factor structures, reliability, and validity, it conducts confirmatory factor analysis (CFA) with a sample of 609 participants, laying a foundation for later phases.

Phase 2: Program Development and Pilot Testing

This phase aligns with traditional R&D's design and development (optimization) steps.

It designs a prototype 5-session intergroup dialogue learning program. Next, it tests the prototype with 12 students (1:1 heterosexual-gay/lesbian ratio). It collects pre-post HS and AIM scores and conducts focus group discussions (to explore views on session flow and engagement). This feedback will be used in the design of the tailor intervention in phase 3.

Phase 3: Sequential Explanatory Mixed Method Design

This phase corresponds to traditional R&D's implementation and evaluation steps.

It implements the refined program with 30 students in the experimental group, while the 15-student control group engages in independent reading on gay and lesbian topics.

To evaluate the program's effectiveness, it adopts a sequential explanatory mixed-methods approach. Quantitatively, it uses two-way repeated-measures MANCOVA to compare changes in HS and AIM scores between the two groups. Qualitatively, it applies thematic analysis to focus group data (30 participants total) to explain program mechanisms.

The study combines traditional R&D's 5 linear steps into 3 phases while maintaining the method's systematic process. This adaptation fits the study's focus on psychological measurement and intervention, ensuring rigor and practical relevance.

Phase 1 Psychometric Validation Study

Phase 1 was a psychometric validation study. It translated and culturally adapted the Homophobia Scale (HS) and Ally Identity Measure (AIM) into Chinese. Bilingual experts did forward and back-translation to ensure linguistic accuracy (Sousa & Rojjanasrirat, 2011). Cultural adaptation followed to align with local contexts. Confirmatory factor analysis (CFA) was performed on a sample of 609 participants. This step validated the factor structures, reliability, and validity of the translated scales (Sakunpong & Ritkumrop, 2021).

Participants

Phase 1 targeted a broader population including both heterosexual, gay and lesbian university students to ensure the cultural validity and applicability of the Homophobia Scale (HS) and Ally Identity Measure (AIM) across diverse sexual orientations in the Chinese context. Subsequent phases focused exclusively on heterosexual students.

Target Population: Gay, lesbian, bisexual, pansexual, and heterosexual university students in Southwest China.

Recruitment:

1.Recruitment materials were shared through official university-affiliated online platforms (e.g., university student affairs management websites, faculty-designated course forums, and authorized campus BBS), physical bulletin boards in student dormitories and teaching buildings, and verified campus social media groups (e.g., WeChat groups for class cohorts, departmental associations, and student organizations). Additionally, the study collaborated with local LGBTQ+ rights NGOs and university-based diversity advocacy groups to expand recruitment reach.

2.To ensure samples meet the inclusion criteria, a pre-screening questionnaire was administered to collect information on age (18–25 years old) and self-reported sexual orientation. Only students who met the basic eligibility requirements were invited to complete the formal scales.

3.Prior to participating in any study procedures, all eligible students were provided with a written informed consent form (available in both electronic and printed versions). Students could choose to sign the electronic form via a secure online survey platform or submit a physically signed hard copy to the research team. The informed consent rate reached 100%, as only students who voluntarily signed the form and confirmed their understanding of the study's purpose, procedures, risks, and rights were enrolled in the subsequent phases of the research.

Inclusion Criteria: 18–25 years old (the common age range of Chinese university students); Self-identified heterosexual, gay, lesbian, bisexual, or pansexual; Willing to take part in quantitative data collection (scale filling).

Exclusion Criteria:

1.Have joined similar research on gay and lesbian issues before (to avoid response bias).

2.Cannot understand or read Chinese well: Southwest China has many ethnic minorities (e.g., Tibetan, Yi), and some students' native language is a minority language, so their Chinese written ability may be poor, which could make scale answers inaccurate.

Number of Participants: Hair et al. (2019) suggest 20 participants per item for scale validation. The 25-item Homophobia Scale (HS) needs at least 500 participants, and the 19-item Ally Identity Measure (AIM) needs at least 380. About 600 participants are selected for reliable confirmatory factor analysis and psychometric tests.

Research Tools

Homophobia Scale

To investigate homophobia within the Chinese context, the current study opted for the Wright Homophobia Scale (HS) (Wright et al., 1999). This multidimensional instrument assesses homophobia along three key axes: cognitive appraisals, behavioral dispositions, and affective responses. The scale comprises 25 Likert-type items, each capturing an individual's level of agreement with statements reflecting these core dimensions. Notably, the Homophobia Scale demonstrated established reliability and was successfully utilized in various countries, including the United States and Italy. However, a validated Chinese version was unavailable. The items are loaded onto three subscales as follows:

1. Behavior/Negative Affect: Gay people make me nervous.
2. Affect/Behavioral Aggression: Gay people deserve what they get.
3. Cognitive Negativism: Gay and lesbian is acceptable to me.

Ally Identity

The Ally Identity Measure (AIM), developed by Jones et al. (2014), was chosen for this investigation. This psychometric tool was meticulously crafted to assess a multifaceted construct of ally behavior towards the lesbian, gay, bisexual, transgender, and queer (LGBTQ) community. It comprehensively evaluated four key domains: (1) skills in supporting LGBTQ individuals, (2) knowledge of the LGBTQ experience, (3) awareness of LGBTQ oppression, and (4) participation of heterosexual allies in LGBT community activism. The AIM utilized a 5-point Likert scale to capture these dimensions. The instrument exhibited robust psychometric properties, including strong internal consistency reliability, moderate to strong convergent and discriminant

validity, and moderate to strong test-retest reliability. Notably, a validated Chinese translation of the AIM was unavailable. The following items were utilized:

1. Knowledge and Skills: I keep myself informed through reading books and other media about various issues faced by sexual minority groups, in order to increase my awareness of their experiences.

2. Openness and Support: If I see discrimination against a sexual minority person or group occur, I actively work to confront it.

3. Oppression Awareness: Sexual minority adolescents experience more bullying than heterosexual adolescents.

Research Procedure

The Psychometric Validation Study had six steps. It developed a culturally appropriate Chinese version of the Wright Homophobia Scale (Wright et al., 1999) and the Ally Identity Measure (Jones et al., 2014). The translation process followed cross-cultural adaptation guidelines (Sousa & Rojjanasrirat, 2011). It used forward translation, backward translation, expert review, and cognitive interviews. These steps ensured semantic equivalence and conceptual integrity with the original scales. The specific steps were as follows:

1.Copyright Authorization

Permission was obtained from the original authors to use the scales on a large scale.

2.Source Language to Target Language Translation via Double-Blind Process.

Documents in the source language underwent forward translation into Chinese by at least two independent translators with expertise in psycholinguistics (Sousa & Rojjanasrirat, 2011). These translators possessed undergraduate or graduate degrees in English and a demonstrably strong foundation in psychology. Fluency in Chinese and a comprehensive understanding of psychological terminology were essential.

3.Blind Back-Translation for Discrepancy Detection

The translated form underwent a blind back-translation process by two additional independent translators who met the same qualifications and possessed the same characteristics outlined in Step 3. These translators operated entirely independently of the original form. Similar to the forward translators, they held undergraduate or graduate degrees in English, possessed a strong background in psychology, demonstrated a firm grasp of psychological terminology, and exhibited fluency in Chinese.

4.Multidisciplinary Reconciliation of Disparities

A committee of three experts in psychology and linguistics carefully compared the two back-translated versions. This meticulous comparison focused on identifying any discrepancies in format, phrasing, sentence structure, semantic similarity, and overall relevance when compared to the original table. Identified discrepancies necessitated a return to Steps 3 through 4, reiterating the process until all discrepancies and ambiguities were resolved.

5.Student Feedback

According to the study of Heckman (2001) at the University of Newark, even if the sample size was small, as long as the design was reasonable, reliable statistical results could be obtained. In his research, he found that experiments using five participants could obtain effect sizes comparable to larger sample size experiments. This step randomly selected five college students, following a 3:2 sampling ratio(Zhang & Lyu, 2018). Three heterosexual college students and two gay and lesbian college students were selected, the significance of the scale was explained to them, they were invited to read the translated scale, and their opinions were collected after reading. The translation of the scale was revised and re-evaluated if the specification, answer format, and items were not clear.

6.Pilot Testing to Assess Acceptability and Validity

A pilot test was conducted to assess reliability using Cronbach's Alpha and to evaluate construct validity using Confirmatory Factor Analysis. The item analysis was assessed using the corrected item-total correlation. As confirmatory factor analysis was

used to test the psychometric properties of this study, the sample size was calculated based on criteria that considered the observable variables (number of items) of each scale on a 1:10–20 ratio (Lin & Hsieh, 2010). With 25 items for the HS and 19 items for the AIM, a sample size of 500 participants (25×20) was considered appropriate. However, to prevent data shortfalls, the researchers collected data from a total of 600 participants. Considering that the research objects were heterosexual and gay, lesbian, bisexual, pansexual college students, and the number of gay, lesbian, bisexual, pansexual college students was lower than that of heterosexual college students (IGLHRC, 2021), a 3:2 sampling ratio was adopted (Zhang & Lyu, 2018). Consequently, 240 gay, lesbian, bisexual, pansexual college students and 360 heterosexual college students were selected.

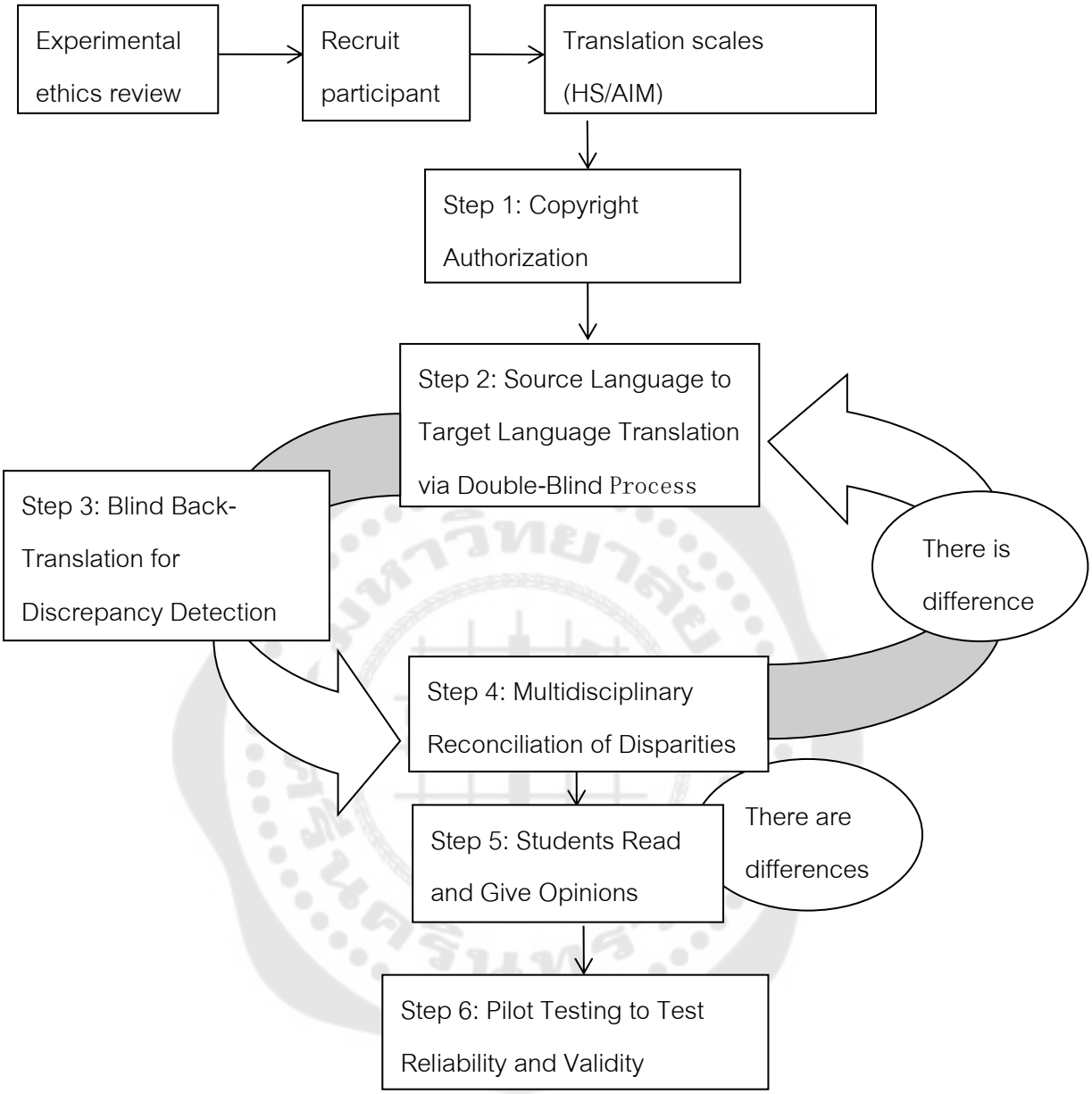

Figure 4 Psychometric Validation Study

Data analysis

In this study, Confirmatory Factor Analysis (CFA) was employed to evaluate the psychometric properties of the Homophobia Scale (Wright et al., 1999) and the Ally Identity Measure (Jones et al., 2014) among college students. Following Hair et al. (2019) and Nunnally (1978), the primary objective was to validate the factor structures (first-order three-factor and second-order models) of the two scales, assess reliability

(Cronbach's α, Composite Reliability [CR]) and construct validity (convergent validity via Average Variance Extracted [AVE], factor loadings).

1. Identify Research Questions and Hypotheses

The study tested whether the Chinese versions of HS and AIM: (1) maintain the original first-order three-factor structure (HS: F1=Behavior/Negative Affect, F2=Affect/Behavioral Aggression, F3=Cognitive Negation; AIM: F1=Knowledge and Skills, F2=Openness and Support, F3=Oppression Awareness); (2) have good reliability (Cronbach's $\alpha \geqslant 0.80$, CR $\geqslant 0.80$) and convergent validity (AVE $\geqslant 0.50$); (3) fit the second-order factor model (higher-order factor effectively explains first-order factors).

2. Collect Data and Check CFA Assumptions

Data was collected from 600 college students in Southwest China. Each participant completed the Chinese HS and AIM independently. The following assumptions and pre-tests were conducted before analysis (Hair et al., 2019; Kaiser, 1974):

(1) Independence of observations: Met (students answered independently).

(2) Normality: Univariate normality tested with Shapiro-Wilk test; multivariate normality checked with Mardia's coefficient.

(3) Suitability of Data for Factor Analysis: KMO measure of sampling adequacy ($\geqslant 0.7$ acceptable, $\geqslant 0.9$ excellent) and Bartlett's Test of Sphericity ($p<0.05$) were used to confirm data suitability for factor analysis.

(4) Extreme Value Handling: Extreme values were identified via the Z-score method ($Z>|3.0|$); participants with extremely high or low scores on the HS or AIM were screened—extremely high scores may indicate response bias (e.g., deliberate exaggeration) or unrepresentative extreme attitudes, while extremely low scores may reflect invalid responses (e.g., random filling) or pre-existing attitudes that leave little room for intervention-related change, reducing the ability to detect program effects. No invalid extreme values were excluded after screening.

(5) Sample size: n=600, following the 10–20 participants per item rule (25-item HS: 250–500; 19-item AIM: 190–380), ensuring statistical power.

(6) Missing data: Rate<5% across all scales, handled with listwise deletion (Hair et al., 2019).

3. Perform Confirmatory Factor Analysis

CFA was conducted with AMOS software (maximum likelihood estimation). First, the original first-order three-factor models of HS and AIM were tested. Model fit was assessed with multiple indices: CMIN/DF, GFI, AGFI, CFI, TLI, RMSEA, SRMR, AIC, NCP, and HOELTER (0.05) (Hair et al., 2019). Standardized factor loadings $\geqslant$ 0.60 were considered good (Comrey & Lee, 1992).

4. Model Evaluation and Refinement

Initial models were evaluated against fit criteria. If fit was suboptimal, modification was conducted based on: (1) modification indices (MI>10); (2) theoretical justification (covarying error terms of conceptually similar items). Modifications were made step by step, with each revised model re-tested to avoid over-fitting (Hair et al., 2019; Sakunpong & Ritkumrop, 2021).

5. Assess Reliability and Validity

(1) Reliability: Evaluated for overall scales and subscales using Cronbach's α ($\geqslant$0.80 for good internal consistency) and CR ($\geqslant$0.80 for strong reliability) (Nunnally, 1978).

(2) Convergent validity: Confirmed if AVE $\geqslant$ 0.50 (Hair et al., 2019).

6. Conduct Second-Order Confirmatory Factor Analysis

Second-order CFA was conducted to test the higher-order factor model. Evaluation criteria included: (1) standardized factor loadings of first-order factors on the higher-order factor $\geqslant$ 0.70; (2) significant path coefficients (p<0.05); (3) overall model fit meeting the specified criteria (Hair et al., 2019).

7. Interpret the Results

All fit indices were reported and compared to cut-off values: CMIN/DF<3.0, GFI $\geqslant$ 0.90, AGFI $\geqslant$ 0.85, CFI $\geqslant$ 0.90, TLI $\geqslant$ 0.90, RMSEA $\leqslant$ 0.08, SRMR $\leqslant$ 0.08; lower

AIC/NCP=better parsimony; HOELTER (0.05) ⩾200=adequate sample representativeness. Factor loadings, reliability, and validity results were examined to confirm the Chinese versions' psychometric properties.

8. Summarize Conclusions

This phase confirmed whether the Chinese HS and AIM have acceptable reliability and validity in the local sample. The validated scales were ready for use in subsequent phases (Sakunpong & Ritkumrop, 2021).

Phase 2 Program Development and Pilot Testing

Phase 2 developed and pilot-tested the intergroup dialogue learning program. The program adapted from Zúñiga et al. (2007). It had five sessions. Sessions covered group beginnings, exploring experiences and identities, hot topics discussion, action planning and alliance building, and feedback on group development. Content was adjusted for Chinese culture. This included topics on family harmony, collectivism, and filial piety. The pilot used a small group of participants. Quantitative methods used HS and AIM scales for measurement. Qualitative methods used focus group discussions (Dessel & Rogge, 2008).

Participants

Target Population: Gay, lesbian and heterosexual university students in Southwest China.

Recruitment

1. Recruitment materials were shared through official university online platforms. These included university student affairs websites, faculty-managed course forums, and approved campus BBS. Materials were also posted on physical bulletin boards in busy areas, such as student dorm lobbies, teaching building hallways, and campus activity centers. Additionally, verified campus social media groups (e.g., class WeChat groups, department clubs, student organization groups) were used to share recruitment information.

2. The study also partnered with local public interest organizations that support gay and lesbian rights and university diversity programs. This helped reach more students interested in sexual diversity topics.

3. A per-screening questionnaire was given to collect key eligibility details. These details included age (18–25 years old) and self-reported sexual orientation. This step ensured participants met the study's inclusion criteria.

4. Before any study activities, all eligible students received a written informed consent form. The form was available in electronic and printed versions. Students could sign the electronic form through a secure, password-protected online survey platform. They could also submit a physically signed hard copy to the research team. The informed consent rate was 100%. Only students who voluntarily signed the form and confirmed understanding of the study's purpose, procedures, potential risks, and rights (e.g., right to withdraw at any time without penalty) were enrolled in Phase 2.

Inclusion Criteria: 18–25 years old; Self-identified heterosexual, gay, or lesbian; Willing to engage in both quantitative and qualitative data collection methods.

Exclusion Criteria:

1. Have joined similar research on gay and lesbian issues before (to avoid response bias).

2. Cannot understand or read Chinese well: Southwest China has many ethnic minorities (e.g., Tibetan, Yi), and some students' native language is a minority language, so their Chinese written ability may be poor, which could make scale answers inaccurate.

3. Have a severe mental illness (diagnosed by a professional medical institution): Severe mental health conditions may affect participants' cognitive judgment and response consistency, leading to unreliable data.

4. Cannot commit to completing all 5 sessions of the intervention program: Incomplete participation will hinder the assessment of the program's continuous effect and internal validity.

Number of Participants: According to Zúñiga et al. (2007), intergroup dialogue learning programs bring together 12–18 participants from two social identity groups in roughly equal numbers. The pilot-test study selected 12 university students, including 7 heterosexual and 5 gay and lesbian participants.

Research Tools

Homophobia Scale

Phase 1 Homophobia Scale (Wright et al., 1999) was translated into Chinese, and the contents and terms were consistent with the original table.

Ally Identity

Ally Identity Measure (Jones et al., 2014) translated into Chinese in Phase 1 was selected, and the contents and terms were consistent with the original table.

Focus Group Discussion

The semi-structured Focus Group Discussion Guide was used in Phase 2 for collecting qualitative feedback to refine the program. The guide consisted of open-ended questions to encourage in-depth group discussions.

The guide was developed in three systematic steps, following established protocols (Krueger & Casey, 2015; O.Nyumba et al., 2018):

1. Initial Drafting: Questions were drafted based on the research objectives (particularly program suitability, challenges, opportunities, and impacts on homophobia and ally identity) and the key elements of intergroup dialogue outlined in Zúñiga et al. (2007).

2. Expert Review: The draft was reviewed by two experts for clarity, cultural sensitivity, neutrality, and relevance to the Southwest Chinese context. One expert was a professor from the university's Department of Psychology specializing in sexual minority issues; the other was a senior staff member from a prominent Chinese LGBTQ+ non-governmental organization. Minor wording adjustments were made based on their feedback.

3. Finalization: The revised guide was finalized and approved for use in the focus groups.

Focus groups were conducted approximately one week after the completion of the intergroup dialogue learning program to allow participants sufficient time to reflect on their experiences and any emerging changes in attitudes or perceptions.

Example Questions from the Focus Group Discussion Guide:

1. Since finishing the five-session program, how have your thoughts and feelings about gay and lesbian changed?

2. Which session or activity made you think differently about homophobia? Please give an example.

3. What part of the program helped you understand privilege or oppression better?

4. After the program, do you now see yourself as an ally? What does "being an ally" mean to you now?

5. What specific actions do you plan to take on campus to support gay and lesbian classmates?

6. Was any part of the program uncomfortable or not suitable for Chinese university students? Why?

7. What suggestions do you have to improve the program for future groups?

These questions were supported by neutral probes to facilitate deeper sharing while maintaining a participant-led approach.

Intergroup Dialogue Learning Program

The Intergroup Dialogue Learning Program served as the core intervention tool. In Phase 2, a pilot version of the program was developed based on a comprehensive literature review and previous empirical studies on intergroup dialogue (Zúñiga et al., 2007). This pilot version was implemented with a small pilot group to assess its viability, gather qualitative feedback, and identify areas for improvement. The insights obtained from this pilot phase were subsequently used to refine and tailor the program for cultural and contextual relevance to Southwest Chinese university students.

In Phase 2, there was only one group involved. Pilot Group (n=12): A small mixed group comprising both heterosexual, gay and lesbian students who participated in the pilot version of the five-session program.

The content of the five sessions in the pilot program is detailed in the table below:

Table 1 Weekly Experimental Arrangement

Week	Activity	Time
1	Making the plan	1week
2	Conduct intergroup dialogue learning program facilitator training	1week
3	Recruitment participator	1week
4	Pretest: Homophobia Scale Ally Identity Measure	60min
5	Session1	90min
6	Session2	90min
7	Session3	90min
8	Session4	90min
9	Session5	120min
10	Post test: Homophobia Scale Ally Identity Measure	60min
11	Focus group	45min
12	Data analysis: T-test	1week

Table 2 Intervention Plan

Session	Goals	Theoretical Application	Activities and Content
Session 1 Building Trust and Safety	Creating a safe space Establish group rules Start equal contact	**Social Contact Theory** (Allport, 1954): Equal status (all participants share equally in setting ground rules) Institutional support (facilitators emphasize confidentiality and respect). **Social Constructivism** (Vygotsky, 1978): Scaffolding (facilitators guide initial sharing to build comfort).	• Group-building: Explore hopes and fears about discussing gay and lesbian issues. • Distinguish dialogue from debate; introduce building blocks of dialogue (e.g., speaking from experience). • Terminology activity: Generate shared meanings for key terms like “homophobia” and “ally” • Practice active listening and paraphrasing in pairs (Zúñiga et al., 2007).
Session 2 Exploring Identity and Social Influence	Understand how society shapes views on sexual orientation Recognize privilege and oppression	**Social Contact Theory** (Allport, 1954): Cooperation (group explores shared and differing experiences together) Common goals (build understanding of social influences). **Social Constructivism** (Vygotsky, 1978): Scaffolding (facilitator prompts reflection on socialization) Cognitive reconstruction (challenge assumptions through discussion).	• Discuss Harro’s cycle of socialization, adapted to sexual orientation (e.g., family, media influences on views of gay and lesbian). • Cultural chest activity: Share personal artifacts related to identity and privilege. • Web of oppression: Map how heteronormativity affects gay, lesbian and heterosexual students. • Identity-based fishbowls: Heterosexual and gay and lesbian groups share experiences separately, then dialogue (Zúñiga et al., 2007).
Session 3 Cross-Group Dialogue on Hot Topics	Reduce emotional tension Develop multiple perspectives	**Social Contact Theory** (Allport, 1954): Equal status (all voices heard in structured discussions) Cooperation (joint exploration of controversial issues).	• Select hot topics like same-sex marriage, campus safety for gay and lesbian, or compulsory heterosexuality. • Take-a-stand activity: Position on a spectrum for statements (e.g., “gay and

Session	Goals	Theoretical Application	Activities and Content
		Social Constructivism (Vygotsky, 1978): Scaffolding (use prompts to deepen inquiry) Cognitive reconstruction (reframe views by hearing diverse perspectives).	lesbian clubs are necessary on campus"). • Gallery walks: Respond to images or quotes on gender/sexuality media representation. • Debrief with questioning to explore conflicts and common ground (Zúñiga et al., 2007).
Session 4 Developing Ally Actions	Turn understanding into concrete behavior Strengthen ally identity	**Social Contact Theory**: (Allport, 1954) Common goals (collaborate on action plans for inclusion) Institutional support (link to campus resources). **Social Constructivism** (Vygotsky, 1978): Scaffolding (facilitator helps refine plans) Cognitive reconstruction (reflect on liberation from biases).	• Discuss Harro's cycle of liberation, focusing on ally roles in challenging homophobia. • Develop action plans: Brainstorm individual and group actions (e.g., creating gay and lesbian-friendly map). • Skits: Role-play scenarios like intervening in homophobic jokes • Affirmation activity: Acknowledge contributions to build alliances (Zúñiga et al., 2007).
Session 5 Reflection and Sustained Support	Consolidate learning Link to long-term resources	**Social Contact Theory** (Allport, 1954): Cooperation (group reflects together on progress). **Social Constructivism** (Vygotsky, 1978): Cognitive reconstruction (integrate insights through reflection) Scaffolding (facilitator guides closure).	• Reflection: Share changes in views on gay and lesbian issues since program start. • Action plan feedback: Review commitments and suggest adjustments. • Resource sharing: List campus and community support for ongoing ally work. • Closing circle: Celebrate group effort and relationships formed (Zúñiga et al., 2007).

Research Procedure

The program development and pilot-test study has six stages (Zúñiga et al., 2007):

1. Ethical Review and Program Design

The study received ethical approval from the university review board. The five-session program was designed. It followed the intergroup dialogue model (Zúñiga et al., 2007). Materials were prepared in Chinese. Sessions were set for 90 minutes each, once a week.

2. Pretest and Final Recruitment

12 college students were selected.7 identified as heterosexual and 5 as gay and lesbian. All participants completed the Chinese versions of the Homophobia Scale (HS) and Ally Identity Measure (AIM) as pretests.

3. Program Delivery

The small group took part in the five weekly sessions. One trained facilitator led the program. The facilitator was the researcher. After the final session, all participants completed the HS and AIM again as post-tests.

4. Quantitative Data Analysis

Paired samples t-tests were used to compare pre- and post-test scores. Results showed large reductions in homophobia and large increases in ally identity.

5. Qualitative Data

Collection and Analysis One week after the program ended, all 12 participants joined one focus group (90 minutes, online). The discussion followed a semi-structured guide. Sessions were recorded and transcribed. Thematic analysis was completed using MAXQDA.

6. Program Evaluation and Revision

Quantitative and qualitative results were reviewed together. The pilot confirmed the program worked well. Feedback led to cultural changes for Phase 3. If the results are not obvious, the process should be continuously evaluated and improved.

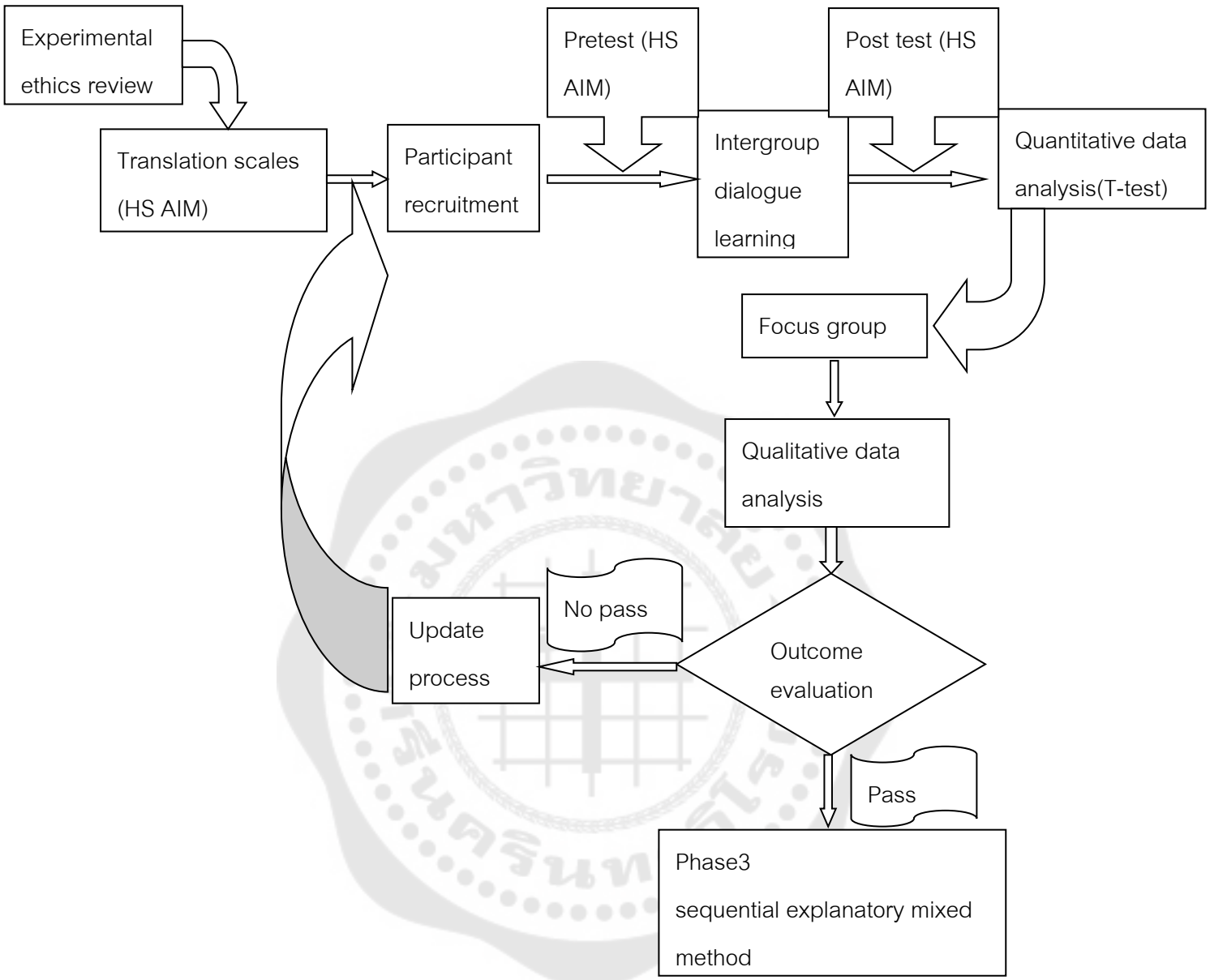

Figure 5 Program Development and Pilot-test Study

Data analysis

Quantitative analysis

Paired-samples t-tests were used to examine changes in homophobia (HS) and ally identity (AIM) scores from pretest to post-test, with a sample size of n=12. This method is particularly suitable for small-sample (n<30) repeated measures designs with two time points, as it maintains statistical power for detecting within-group changes (Field, 2018).

1. State Research Hypotheses

Given the scale scoring rules (higher HS scores indicate stronger homophobia; higher AIM scores indicate stronger ally identity), the research hypotheses are: (1) HS scores will decrease significantly from pretest to post-test; (2) AIM scores will increase significantly from pretest to post-test (Zúñiga et al., 2007).

2. Check Assumptions

Before analysis, assumptions of the paired-samples t-test were examined (Field, 2018):

(1) Data was continuous (interval level).

(2) Normality of the pretest-posttest difference scores was assessed using two complementary methods: (a) Shapiro-Wilk test (preferred for small samples due to high power) (Field, 2018); (b) Q-Q plots (to visually verify data distribution). If the Shapiro-Wilk p-value is marginally close to 0.05, normality is further confirmed by non-significant normality of difference scores ($p>0.05$) to justify parametric tests (Hair et al., 2019).

(3) No extreme outliers were present in the difference scores (identified via Z-score method, $Z>|3.0|$).

(4) The same participants completed both pre- and post-tests.

2.1 Extreme Value Handling

Extreme values were identified using the Z-score method ($Z>|3.0|$). If extreme values were detected, their validity would be verified; no data points would be excluded or adjusted without justification.

2.2 Missing Data Handling

Missing values were checked for all variables. If the missing data rate <5% (acceptable threshold for statistical analysis), listwise deletion was used to avoid significant bias (Hair et al., 2019).

3. Conduct Paired-Samples T-Test

SPSS was used to conduct separate paired-samples t-tests for HS and AIM. Effect sizes were quantified using Cohen's d (Cohen, 1988), with thresholds

defined as small (d=0.2), medium (d=0.5), and large (d=0.8) to interpret the practical magnitude of intervention effects.

4. Report and Interpret Results

Reported outcomes included:

(1) Descriptive statistics: Pretest and post-test scores (mean ± standard deviation, M ± SD) for HS and AIM.

(2) Inferential statistics: Mean difference (pretest minus post-test), t-value, degrees of freedom (df), exact p-value, 95% confidence interval of the difference, and Cohen's d.

A p-value <0.05 indicated statistical significance. A negative mean difference for HS (pretest - post-test) and a positive mean difference for AIM supported the hypotheses (Field, 2018).

5. Draw Conclusions

Significant results showed that the five-session intergroup dialogue learning program reduced homophobia and increased ally identity among participants. Non-significant results would suggest no measurable change from the intervention (Zúñiga et al., 2007).

Qualitative Data Analysis

Thematic analysis was employed to examine the qualitative data obtained from focus group discussions in Phase 2. This approach is well-suited for identifying, analyzing, and reporting patterns of meaning within participants' reflections on their experiences, insights, and perceived changes following the intergroup dialogue learning program (Ahmed et al., 2025; Braun & Clarke, 2006). Focus groups were conducted approximately one week after program completion, allowing participants time to reflect on their attitudes and perceptions.

The analysis followed (Ahmed et al., 2025; Braun & Clarke, 2006) reflexive thematic analysis framework, which is inductive and emphasizes the researcher's active role in interpreting the data. This method was consistent across the qualitative components of the study and aligned with the constructivist lens of the research,

focusing on how participants constructed meaning from the intervention. The process involved the following steps:

1. Familiarizing with the Data: Audio recordings from the focus groups were transcribed verbatim by the researcher. Transcripts were reviewed multiple times through reading and re-reading to become deeply familiar with the content and note initial ideas (Ahmed et al., 2025; Braun & Clarke, 2006).

2. Generating Initial Codes: The researcher systematically coded the entire dataset using MAXQDA software for organization. Coding was primarily inductive, identifying features of the data relevant to participants' experiences, challenges, insights, and changes in homophobia and ally identity through repeated engagement with the transcripts.

3. Searching for Themes: Codes were collated into potential themes by grouping similar patterns that captured important aspects of the data in relation to the research questions.

4. Reviewing and Defining Themes: Candidate themes were checked against the coded data and the full dataset for coherence. Themes were refined, clearly defined, and named to reflect their essence and relevance to the study's objectives (Ahmed et al., 2025; Braun & Clarke, 2006).

5. Interpreting and Reporting Findings: To enhance trustworthiness, the researcher personally coded all transcripts using MAXQDA software. Emerging codes and themes were regularly discussed with the dissertation advisor, who has extensive experience in qualitative research and LGBTQ+ topics, through peer debriefing sessions. The researcher first coded portions independently, followed by detailed discussions with the advisor to align interpretations, refine the framework, and minimize bias. This iterative review process served as an external audit of the analytic process (Levitt et al., 2017).

Thematic saturation was assessed following Guest et al. (2006). The researcher examined the later transcripts separately after initial theme extraction. No significant new themes emerged. The advisor reviewed this assessment and confirmed

through discussion that saturation had been reached, indicating that the thematic framework fully captured participants' experiences. Furthermore, this approach relying on single-coder analysis with supervisor validation—aligns with methodological norms for small-sample intervention studies (Ahmed et al., 2025).

Table 3 provides an example for one overarching theme 1, showing the progression from raw data extracts to initial codes to subthemes and the broader theme. This example is drawn from the pilot phase data:

Table 3 Thematic Analysis Process Example (Theme 1)

Data Extract (Participant Quote)	Initial Code	Subtheme	Contribution to Overarching Theme
"After the class, I felt that there was no difference between GL's relationships and heterosexual relationships. So, my prejudices are disappearing." (Participant ID3)	Disappearing prejudices through recognizing similarity	Subtheme 1.1: Acceptance Within the Gay and Lesbian Community	Demonstrates reduced prejudice and increased acceptance via normalized views of relationships
"I was homophobic before the class, because when I thought of gay and lesbians, I would associate them with chaotic sexual behavior." (Participant ID6)	Associating gay/lesbian with chaotic behavior as source of homophobia	Subtheme 1.2: Exploring the Origins of Homophobia	Reveals stereotypical associations as root of prior homophobia

Phase 3 Sequential Explanatory Mixed Method Design

Phase 3 used a sequential explanatory mixed-methods design (Creswell & Clark, 2018). Quantitative data was collected and analyzed first. Qualitative data was collected secondly to help explain the quantitative results. This design was chosen for two reasons. First, it tests whether the intergroup dialogue learning program reduces homophobia and increases ally identity. Second, it explains how and why these changes happen through participants' own words (Ivankova et al., 2006; Zúñiga et al., 2007). The two phases together strengthen the validity of the findings (Creswell & Clark, 2018).

Quantitative results showed the size and significance of changes. Qualitative results explained the processes that led to these changes. Integration occurred at the interpretation stage by connecting statistical findings with participant themes (Creswell & Clark, 2018).

Participants

Target Population: Gay, lesbian and heterosexual university students in Southwest China.

Recruitment

1. Recruitment materials were shared through official university online platforms. These included university student affairs websites, faculty-managed course forums, and approved campus BBS. Materials were also posted on physical bulletin boards in busy areas, such as student dorm lobbies, teaching building hallways, and campus activity centers. Additionally, verified campus social media groups (e.g., class WeChat groups, department clubs, student organization groups) were used to share recruitment information.

2. The study also partnered with local public interest organizations that support gay and lesbian rights and university diversity programs. This helped reach more students interested in sexual diversity topics.

3. A pre-screening questionnaire was given to collect key eligibility details. These details included age (18–25 years old) and self-reported sexual orientation. This step ensured participants met the study's inclusion criteria.

4. Before any study activities, all eligible students received a written informed consent form. The form was available in electronic and printed versions. Students could sign the electronic form through a secure, password-protected online survey platform. They could also submit a physically signed hard copy to the research team. The informed consent rate was 100%. Only students who voluntarily signed the form and confirmed understanding of the study's purpose, procedures, potential risks, and rights (e.g., right to withdraw at any time without penalty) were enrolled in Phase 3.

Inclusion Criteria: 18–25 years old; Self-identified heterosexual, gay, or lesbian; Willing to engage in both quantitative and qualitative data collection methods.

Exclusion Criteria:

1. Have joined similar research on gay and lesbian issues before (to avoid response bias).

2. Cannot understand or read Chinese well: Southwest China has many ethnic minorities (e.g., Tibetan, Yi), and some students' native language is a minority language, so their Chinese written ability may be poor, which could make scale answers inaccurate.

3. Have a severe mental illness (diagnosed by a professional medical institution): Severe mental health conditions may affect participants' cognitive judgment and response consistency, leading to unreliable data.

4. Cannot commit to completing all 5 sessions of the intervention program: Incomplete participation will hinder the assessment of the program's continuous effect and internal validity.

Sample Size and Group Assignment

A total of 45 eligible students were recruited, consistent with the sample size requirements for quasi-experimental designs testing intervention effects (Field, 2018). Participants were selected through purposive sampling to ensure the required sexual orientation composition and feasibility of group sessions.

To achieve balanced intergroup contact, participants were stratified by sexual orientation and quasi-randomly assigned to three groups using matched allocation based on baseline Homophobia Scale (HS) and Ally Identity Measure (AIM) pretest scores. This procedure ensured equivalent distribution across groups while maintaining the fixed ratio in each group:

1. Experimental Subgroup 1 (n = 15): 6 gay/lesbian, 9 heterosexual.

2. Experimental Subgroup 2 (n = 15): 6 gay/lesbian, 9 heterosexual.

3. Wait-list Control Group (n = 15): 6 gay/lesbian, 9 heterosexual.

Stratified Random Assignment Process

1. To ensure balance in key variables that might influence outcomes, stratified random assignment was performed using Excel, with stratification based on two critical variables: sexual orientation (heterosexual vs. Gay and lesbian) and university year (freshman/sophomore/junior/senior). The specific steps were:

2. Eligible participants were sequentially coded from 001 to 045 in Excel, with demographic information (sexual orientation, university year, gender) recorded for stratification; Excel was used to generate random numbers corresponding to each code, ensuring randomness within each stratum; Participants were sorted by random number within each stratum (e.g., heterosexual freshmen, gay or lesbian sophomores);Within each stratum, the first 15 participants were assigned to Experimental Subgroup 1, the next 15 to Experimental Subgroup 2, and the last 15 to the Wait-list Control Group;

3. Post-assignment balance checks were conducted: Chi-square tests confirmed no significant differences in the proportion of sexual orientation (χ^2 =0.12, p=0.94) or university year (χ^2=1.87, p=0.76) across the three groups, verifying group equivalence.

Research Tools

Homophobia Scale

Phase 1 Homophobia Scale (Wright et al., 1999) was translated into Chinese, and the contents and terms were consistent with the original table.

Ally Identity

The Ally Identity Scale (Jones et al., 2014) that was translated into Chinese in Phase 1 was selected, and its contents and terms were consistent with the original scale.

Focus Group Discussion

In Phase 3, the semi-structured Focus Group Discussion Guide was used to collect qualitative data from the tailored intervention group participants to explore their lived experiences, insights, and mechanisms of attitude change following the tailored intergroup dialogue learning program. The guide consisted of open-ended questions

designed to encourage in-depth group discussions while allowing flexibility for emergent topics.

The guide was developed in three systematic steps, following established protocols for constructing focus group moderators' guides (Krueger & Casey, 2015; O.Nyumba et al., 2018):

1. Initial Drafting: Questions were drafted based on the research objectives (particularly those related to participants' unique experiences, insights, and how these shaped attitudes toward the gay and lesbian community and ally identity construction) and the key elements of intergroup dialogue outlined in Zúñiga et al. (2007).

2. Expert Review: The draft was reviewed by two experts to ensure clarity, cultural sensitivity, neutrality, and relevance to the Southwest Chinese university context. One expert was a professor from the university's Department of Psychology specializing in sexual minority issues; the other was a senior staff member from a prominent Chinese LGBTQ+ non-governmental organization. Minor wording adjustments were made based on their feedback.

3. Finalization: Revisions from the expert reviews were incorporated, and the guide was finalized and approved for use in the Phase 3 focus groups.

Focus groups were conducted approximately one week after the completion of the intergroup dialogue learning program to allow participants sufficient time to reflect on their experiences and any emerging changes in attitudes or perceptions.

Example Questions from the Focus Group Discussion Guide:

1. After the tailored program ended, how have your feelings about homophobia changed? Please give one example from your daily life on campus.

2. How did the discussions about family harmony, filial piety, and "saving face" affect your views of gay and lesbian classmates?

3. Which activity helped you most to reduce negative attitudes? For example, the fishbowl dialogue, or the action-planning session?

4. Do you now see yourself as an ally? What does “being an ally” mean to you as a Chinese university student?

5. What specific actions have you already taken (or definitely plan to take) to support gay and lesbian students? For example, stopping homophobic jokes, sharing resources, or creating safe spaces.

6. How were any topics or activities uncomfortable because of cultural norms?

7. What suggestions do you have for future programs in Southwest China universities?

These questions were supported by neutral probes to facilitate deeper reflection while ensuring discussions remained participant driven. The guide prioritized creating a safe and respectful space, consistent with intergroup contact principles.

Tailored Intergroup Dialogue Learning Program

The Tailored Intergroup Dialogue Learning Program served as the core intervention tool in Phase 3. This tailored version was customized for the Southwest Chinese university context, incorporating refinements derived from Phase 2 pilot feedback to address cultural barriers such as Confucian filial piety, collectivism, and limited campus resources for sexual minorities (Bedford & Yeh, 2019; Wang et al., 2020). The program maintained the foundational structure of intergroup dialogue while enhancing relevance through targeted adjustments (Zúñiga et al., 2007).

In Phase 3, two groups were involved:

1. Intervention Group: Participants who received the full five-session tailored program.

2. Control Group: A wait-list control group that did not receive the intervention during the study period but completed the same measurement protocols.

The content of the five sessions in the tailored program is detailed in the table below.

Table 4 Example of Tailored Adjustments to Program Sessions

Session	Tailored Adjustments
Session 1	Strengthened safety contracts to build trust amid "saving face" norms, based on feedback regarding sharing identities without judgment.
Session 2	Added discussions on filial piety, linking family duty to homophobia views, incorporating reflections on parental expectations in coming-out stories.
Session 3	Included collectivism in "Position Spectrum" activities to explore barriers such as prioritizing group harmony over individual allyship.
Session 4	Focused on low-key actions suited to limited resources (e.g., building peer networks, intervening in homophobic jokes, posting educational articles, or creating counselor maps), as suggested by psychological committee members.
Session 5	Linked personal reflections to ongoing support strategies, addressing counselors' recommendations for explicit resources in student handbooks.

Research Procedure

Phase 3 used a quasi-experimental nonequivalent control group design with stratified random assignment to groups, following the framework by Campbell & Stanley (1963) and Shadish et al. (2002). It was not a true experimental design because participants were recruited through purpose sampling, targeting eligible gay, lesbian, and heterosexual university students in Southwest China, rather than random sampling from the wider population of Southwest Chinese university students. Random sampling from the overall population is a key requirement for true experimental designs (Campbell & Stanley, 1963). This quasi-experimental design was suitable to test the causal effects of the tailored intergroup dialogue learning program: reducing homophobia and enhancing ally identity, while controlling for potential confounding variables (e.g., baseline attitudes, demographic differences). All participants volunteered. Stratified random assignment (based on sexual orientation, university year and gender) balanced group composition, ensuring equivalence between the experimental and control conditions despite non-random participant sampling.

1. Plan Timeline

(1) The study followed a structured timeline to collect pretest, post-test, follow-up, and qualitative data, aligning with the "sustained contact" principle of

intergroup dialogue (Zúñiga et al., 2007) and ensuring the measurement of immediate and long-term effects:

(2) Pretest: Completed at the beginning of Session 1 (before any activity).

(3) Intervention: Five weekly sessions (90 minutes each).

(4) Post-test: Completed at the end of Session 5 (after the closing activity).

(5) Focus groups: Held one week after Session 5 (experimental groups only; two groups of 15).

(6) One-month follow-up test: Sent exactly 30 days after Session 5.

All quantitative data (pretest, post-test, follow-up) were collected online via Wenjuan Xing to ensure convenience for participants, with IP address restrictions to prevent repeated submissions. Qualitative focus groups were conducted via Zoom (recorded with participant consent) to accommodate geographic dispersion across universities.

2. Intervention Implementation

(1) Experimental Groups (Subgroups 1 and 2)

Both experimental subgroups participated in the same tailored intergroup dialogue learning program, designed based on Zúñiga et al.'s (2007) intergroup dialogue framework: Session 1 (Group Beginnings): Ice-breaking activities; Session 2–3 (Exploring Differences): Structured activities; Session 4Discussing Hot Topics; Session 5Action Planning.

(2) Control Group

The Control Group received no interactive intervention. Instead, they were provided with 5 electronic reading materials (e.g., gay and lesbian history, legal rights in China) to control for information exposure, with no requirement for discussion or reflection.

3. Quantitative analysis of the measurement data was performed using two-way MANCOVA with repeated measures, following the procedural guidelines

outlined by Tabachnick and Fidell (2019) and Field (2018) to examine group differences (intervention and control), time effects, and their interaction on the dependent variables while controlling for relevant covariates.

4. After the intervention, focus group interviews were conducted separately with the two experimental subgroups to explore participants' subjective experiences and attitude changes. Qualitative data analysis was completed using thematic analysis, following the six-step framework proposed by Braun and Clarke (2006).

5. Integration of Quantitative and Qualitative Results

A sequential explanatory mixed methods approach (Creswell & Clark, 2018) was used to integrate the two types of data:

(1) Quantitative results were analyzed to identify whether the intervention had significant effects on reducing homophobia and enhancing ally identity.

(2) Qualitative themes were used to explain "why" and "how" the intervention worked (e.g., linking significant reductions in HS scores to qualitative reports of "increased contact with gay and lesbian").

(3) Inconsistencies between quantitative and qualitative results were explored (e.g., if a subgroup showed no significant quantitative change but reported subjective attitude shifts) to provide a comprehensive understanding of the intervention's effects.

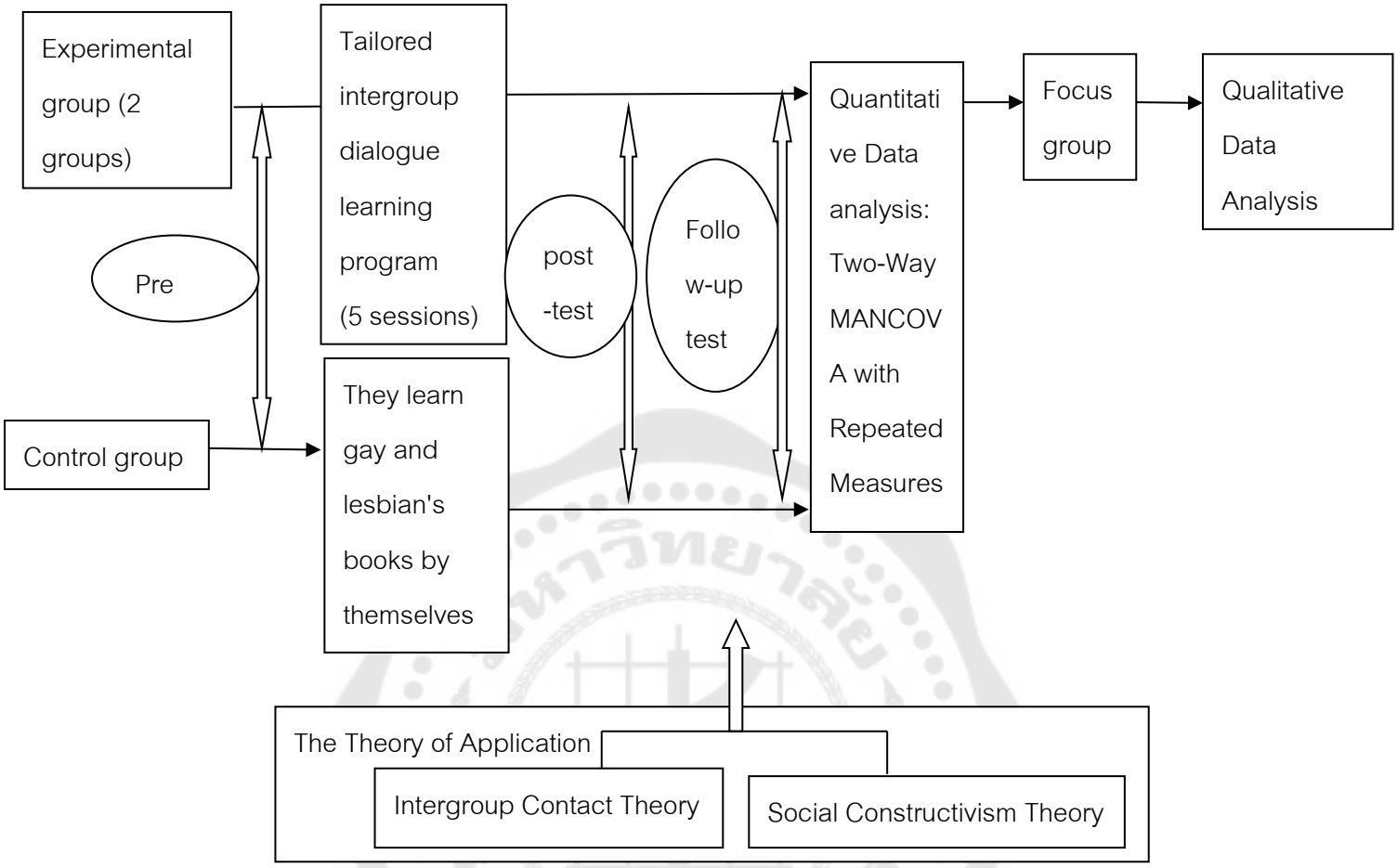

Figure 6 Sequential Explanatory Mixed Method

Data Analysis

Quantitative Data Analysis

A2 (Group: Experimental Group vs. Control Group) ×2 (Time: Post-test vs. Follow-up) two-way repeated-measures MANCOVA was conducted to test the intervention effects, following the procedures outlined by Tabachnick and Fidell (2019) and Field (2018). Given the consistency of the intervention protocol between the two original experimental subgroups, they were merged into a single Experimental Group (n=30) to enhance statistical power, with the Control Group (n=15) as the reference.

1. Assumption Testing

Normality (Shapiro-Wilk test), homogeneity of covariance (Box's M test), and sphericity (Mauchly's test) were verified before analysis. Given that the within-subjects factor (Time) included only two levels, sphericity is inherently satisfied

(Mauchly's W=1.00), and no correction is required (Field, 2018). Pillai's Trace was used as the test statistic for MANCOVA, as it is robust to violations of multivariate normality and homogeneity of covariance (Field, 2018).

2. Main Analysis

(1) Pretest HS and AIM scores were entered as covariates to control for baseline differences between groups. The within-subjects factor (Time) included two measurement points: Post-test (35 days after Pretest) and Follow-up (65 days after Pretest).

(2) Pillai's Trace was used to examine three effects:

A. Group main effect (differences in overall HS/AIM scores across Experimental vs. Control Group).

B. Time main effect (overall changes in HS/AIM scores across Post-test vs. Follow-up).

C. Group×Time interaction effect (differences in score changes between groups, indicating intervention effects).

3. Follow-up Analyses

If the multivariate MANCOVA yielded significant effects, univariate ANCOVA was conducted for each dependent variable (HS and AIM scores) to further clarify the source of the multivariate effect. For significant main effects or interaction effects in univariate ANCOVA, pairwise comparisons with Bonferroni correction were used to identify specific group differences at each time point.

4. Effect Size Reporting

Partial η^2 (for MANCOVA/ANCOVA) and Cohen's d (for pairwise comparisons) were reported to quantify the magnitude of effects (Field, 2018).

Qualitative Data Analysis

The qualitative data from Phase 3 were analyzed using reflexive thematic analysis (Ahmed et al., 2025; Braun & Clarke, 2006), following the same procedures as in Phase 2.

Ethical Considerations

This study adhered to rigorous ethical standards throughout all phases (Phase 1: psychometric validation; Phase 2: pilot testing; Phase 3: main intervention evaluation). All procedures received approval from the Institutional Review Board (IRB) of Chongqing University of Technology (Approval Number: AF-IRB-RP-015-01; Approval Date: June 1, 2024; Valid Until: December 9, 2025).

Informed Consent

Participants in all phases received a detailed informed consent form in Chinese, explaining the study's purpose, procedures, potential benefits and risks, voluntary nature of participation, and right to withdraw at any time without consequences. The form also provided specific complaint channels, including a dedicated ethical inquiry phone number and email address for raising concerns or appeals. Participants signed the form prior to any data collection. For online components (e.g., focus groups when applicable), electronic consent was obtained via a secure platform. No complaints or appeals were received from participants throughout the study.

Anonymity and Confidentiality

To protect participant privacy across all phases:

1. Participant names were immediately replaced with unique identification codes (e.g., EXP01, EXP02).

2. Audio recordings and transcripts were stored on an encrypted university server with password protection.

3. Access to raw data was restricted to the principal investigator and one trained research assistant.

4. Only anonymized quotes and aggregated data were used in reports, publications, and presentations.

5. Audio files will be deleted three years after thesis defense; transcripts and quantitative data will be retained for seven years in encrypted storage before permanent deletion, in accordance with Chinese Psychological Society ethical guidelines (2018).

Minimizing Risk and Ensuring Safety

Special measures were implemented to address potential emotional risks associated with discussing sensitive topics related to sexual orientation:

1. All intervention sessions and focus groups adhered to strict safety guidelines, including participant confidentiality contracts, a commitment to a non-judgmental environment, and provisions for equal speaking opportunities.

2. Participants experiencing emotional distress were offered immediate referral to the university counseling center.

3. Contact information for free national LGBTQ+ support hotlines was provided in the consent form and at every intervention session and focus group.

Data Security

1. All electronic data were stored on password-protected, encrypted drives accessible only to the research team. Backups were maintained on the university's secure cloud server with two-factor authentication.

2. These protocols ensured robust participant protection while upholding scientific integrity (APA, 2017).

CHAPTER 4
FINDINGS

The present research adopted a Research and Development (R&D) approach and consisted of three phases. Phase 1 was a psychometric validation study combining a data collection process and a quantitative method that allowed the researcher to collect data by deploying a survey-based approach. The research used an online questionnaire as a statistical tool to validate the proposed theoretical framework. Confirmatory factor analysis (CFA) was used to study the psychometric properties among the study variables and validate the reliability and validity of the Homophobia Scale (HS) (Wright et al., 1999) and Ally Identity Measure (AIM) Jones et al., (2014), proving Hypothesis 1. Phase 2 was a program development and pilot study. The researcher created the intergroup dialogue learning program and tested its viability in reducing homophobia and enhancing ally identity, using paired t-tests for quantitative pre- and post-test analysis and focus group interviews for qualitative exploration, proving Hypothesis 2. Phase 3 was the main evaluation study. The researcher implemented the tailored intergroup dialogue learning program and tested its effectiveness in reducing homophobia and improving ally identity among college students in Southwest China, using two-way repeated-measures MANCOVA for quantitative group comparisons and thematic analysis for qualitative insights, proving Hypothesis 3.

The results are presented in the order of the three phases.

Results of Phase 1: Psychometric Validation Study

1. Translate Homophobia Scale and Ally Identity Measure translation

Table 5 presented the baseline characteristics of the participants in the Psychometric Validation Study. A total of 609 college students in Chongqing completed the Homophobia Scale (HS) and Ally Identity Measure (AIM). In the sample, there were more women participants (n=379, 62.2%) than men participants (n=230, 37.8%). All (n=609, 100%) identified as non-religious.

The grades of the participants ranged from the first year of undergraduate study to the third year of postgraduate study.

Table 5 Baseline Characteristics of the Study Participants (n=609)

Characteristics	n
Gender	
Cisgender Man	226
Cisgender women	363
Transgender man	4
Transgender women	16
Sexual orientation	
heterosexual	372
Gay	73
Lesbian	75
bisexual	66
pansexual	23
Age in year	
<18	3
18-25	590
26-30	11
31-40	5
Educational level	
Bachelor's degree	561
Master's degree	48
Local area	
Southwest China	412
South China	150
East China	26
Northwest China	21
Ethnic group	
Han ethnic group	332
Tujia ethnic group	178
Miao Ethnic Group	90

2. Analysis of Homophobic and Allies Attitudes in Southwest China

Based on the data in Table 6, 25 items of the Homophobia Scale, with 16 items (Items 1, 2, 4, 5, 6, 9, 12, 13, 14, 15, 17, 19, 21, 23, 24, 25) requiring reverse scoring before analysis (Wright et al., 1999), the overall response pattern of respondents in Southwest China shows a prominent negative tendency, with high proportions of "Strongly Agree" and "Agree" on homophobia-related items. The HS uses a 5-point Likert scale (1=Strongly Agree, 2=Agree, 3=Neither agree nor disagree, 4=Disagree, 5=

Strongly Disagree), and the “Agree/Strongly Agree” proportion for each item is calculated as the percentage of participants selecting options 1 or 2 out of all respondents.

Across the 25 items, the mean scores range from 1.60 (Item 9) to 2.50 (Item 3), all falling within the “Agree” to “Strongly Agree” range. Specifically:

5 items (Items 9, 11, 12, 14, 15, have mean scores $\leqslant$2.00, corresponding to “Agree/Strongly Agree” proportions of 70%–85% (e.g., Item 9: mean = 1.60, 82% “Strongly Agree”; Items 12 and 14: mean = 1.70, 78% and 76% “Strongly Agree” respectively);

20 items (e.g., Items 1, 2, 4, 5, 6) have mean scores between 2.00 and 2.50, corresponding to “Agree/Strongly Agree” proportions of 60%–70% (e.g., Item 4: mean = 2.30, 65% “Agree”; Item 3: mean = 2.50, 60% “Agree”).

Overall, over 60% of respondents selected “Agree” or “Strongly Agree” for all 25 items, and 24% of items (6 out of 25) had “Agree/Strongly Agree” proportions exceeding 75%. This indicates widespread derogation, distrust, exclusion, and fear toward gay and lesbian individuals among the sample, highlighting the need to address homophobia in this population.

Table 6 Attitudes Toward gay and lesbian

NO.	Content	Mean score
1	Gay people make me nervous.	2.20
2	Gay people deserve what they get.	2.20
3	Gay and lesbian is acceptable to me.	2.50
4	If I discovered a friend was gay, I would end the friendship.	2.30
5	I think homosexual people should not work with children.	2.40
6	I make derogatory remarks about gay people.	2.30
7	I enjoy the company of gay people.	2.40
8	Marriage between homosexual individuals is acceptable.	2.40
9	I make derogatory remarks like “faggot” or “queer” to people I suspect are gay.	1.60
10	It does not matter to me whether my friends are gay or straight.	2.00
11	It would not upset me if I learned that a close friend was homosexual.	1.80
12	Gay and lesbian is immoral.	1.70
13	I tease and make jokes about gay people.	2.00
14	I feel that you cannot trust a person who is homosexual.	1.70
15	I fear homosexual persons will make sexual advances towards me.	1.90
16	Organizations which promote gay rights are necessary.	2.00
17	I have damaged property of gay persons, such as “keying” their cars.	2.10
18	I would feel comfortable having a gay roommate.	2.20
19	I would hit a homosexual for coming on to me.	2.10
20	Homosexual behavior should not be against the law.	2.30
21	I avoid gay individuals.	2.20
22	It does not bother me to see two homosexual people together in public.	2.20
23	When I see a gay person I think, “What a waste.”	2.10
24	When I meet someone, I try to find out if he/she is gay.	2.00
25	I have rocky relationships with people that I suspect are gay.	2.10

Note. The Homophobia Scale (HS) uses a 5-point Likert scale (1 = Strongly Agree, 2 = Agree, 3 = Neither agree nor disagree, 4 = Disagree, 5 = Strongly Disagree). Items 1, 2, 4, 5, 6, 9, 12, 13, 14, 15, 17, 19, 21, 23, 24, 25 are reverse scored (1=5, 2=4, 3=3, 4=2, 5=1). Higher scores indicate stronger homophobic attitudes.

Based on the data in Table 7, 19 items of the Ally Identity Measure (Jones et al., 2014) and the scale's scoring rule, the overall response pattern of respondents in Southwest China shows a "neutral-leaning negative" tendency in ally identity, with most items falling into the "Neither agree nor oppose" category and a few into "Disagree". The AIM uses a 5-point Likert scale (1 = Strongly Disagree, 2=Disagree, 3=Neither agree nor oppose, 4=Agree, 5=Strongly Agree), and the "Disagree/Strongly Disagree" proportion for each item is calculated as the percentage of participants selecting options 1 or 2 out of all respondents, while the "Neither agree nor oppose" proportion refers to the percentage of participants choosing option 3.

Across the 19 items, the mean scores range from 2.84 (Item 11) to 3.38 (Item 5), mostly falling within the "Neither agree nor oppose" range with some leaning toward "Disagree". Specifically:

5 items (Items 11, 14, 12, 7, 19) have mean scores $\leqslant$ 2.99, corresponding to "Disagree" proportions of 55%–62% (e.g., Item 11: mean = 2.84, 62% "Disagree"; Item 14: mean = 2.86, 60% "Disagree"; Item 19: mean = 2.99, 55% "Disagree");

14 items (e.g., Items 2, 3, 4, 15, 5) have mean scores between 3.00 and 3.38, corresponding to "Neither agree nor oppose" proportions of 58%–65% (e.g., Item 2: mean = 3.00, 60% "Neither agree nor oppose"; Item 3: mean = 3.04, 61% "Neither agree nor oppose"; Item 5: mean = 3.38, 58% "Neither agree nor oppose").

Overall, over 55% of respondents selected "Neither agree nor oppose" or "Disagree" for all 19 items, and 26% of items (5 out of 19) had "Disagree" proportions exceeding 58%. This indicates deficiencies in respondents' ally identity, including limited relevant knowledge, weak willingness to oppose discrimination, and insufficient support capabilities—highlighting the need to strengthen ally development for this population.

Table 7 Ally Status for gay and lesbian

NO.	Content	Mean score
1	I keep myself informed through reading books and other media about various issues faced by sexual minority groups, in order to increase my awareness of their experiences.	3.33
2	I know about resources (for example: books, websites, support groups, etc.) for sexual minority people in my area.	3.00
3	I know of organizations that advocate for sexual minority issues.	3.04
4	If I see discrimination against a sexual minority person or group occur, I actively work to confront it.	3.25
5	Sexual minority adolescents experience more bullying than heterosexual adolescents.	3.38
6	I have taken a public stand on important issues facing sexual minority people.	3.20
7	I am aware of policies in my workplace and/or community that affect sexual minority groups.	2.96
8	I regularly engage in conversations with sexual minority people.	3.01
9	I try to increase my knowledge about sexual minority groups.	3.25
10	Sexual minority adolescents experience more depression and suicidal thoughts than heterosexual adolescents.	3.26
11	If requested, I know where to find religious or spiritual resources for sexual minority people.	2.84
12	I am aware of the various theories of sexual minority identity development.	2.90
13	I am open to learning about the experiences of sexual minority people from someone who identifies as an LGBTQ person.	3.15
14	I know about resources for families of sexual minority people (for example: PFLAG).	2.86
15	I have developed the skills necessary to provide support if a sexual minority person needs my help.	3.04
16	I have engaged in efforts to promote more widespread acceptance of sexual minority people.	3.07
17	I think the sexual minority groups are oppressed by society in the United States.	3.26
18	I think sexual minority individuals face barriers in the workplace that are not faced by heterosexuals.	3.17
19	I am comfortable with knowing that, in being an ally to sexual minority individuals, people may assume I am a sexual minority person.	2.99

Note. The Ally Identity Measure (AIM) uses a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly Agree). No reverse-scored items. Higher scores indicate a stronger ally identity. The scale includes three subscales: Knowledge and

Skills (Items 1, 2, 3, 7, 11, 12, 14, 15), Openness and Support (Items 4, 6, 8, 9, 13, 16, 19), and Oppression Awareness (Items 5, 10, 17, 18).

3. Confirmatory Factor Analysis of the Second-Order Model

In Table 8, Both scales demonstrated high internal consistency. The HS scale (25 items) yielded a Cronbach's α of 0.93, while the AIM scale (19 items) achieved a Cronbach's α of 0.97 (Table 8). Subscales of both measures also exhibited strong reliability, with Cronbach's α values ranging from 0.85 to 0.89 for HS subscales (F1: Behavior/Negative Affect, F2: Affect/Behavioral Aggression, F3: Cognitive Negation) and 0.89 to 0.93 for AIM subscales (F1: Knowledge and Skills, F2: Openness and Support, F3: Oppression Awareness). Composite Reliability (CR) values exceeded 0.85 for HS and 0.89 for AIM, and Average Variance Extracted (AVE) values were above 0.50 for HS and 0.60 for AIM, confirming adequate convergent validity.

Table 8 Reliability Statistics

Scale	Items	Cronbach's α	CR	AVE
HS	25	0.93	—	—
HS-F1 (Behavior/Negative Affect)	10	0.89	0.89	0.51
HS-F2 (Affect/Behavioral Aggression)	10	0.88	0.88	0.50
HS-F3 (Cognitive Negation)	5	0.85	0.85	0.53
AIM	19	0.97	—	—
AIM-F1 (Knowledge and Skills)	8	0.93	0.93	0.61
AIM-F2 (Openness and Support)	7	0.92	0.92	0.60
AIM-F3 (Oppression Awareness)	4	0.89	0.89	0.67

Note. Cronbach's α ⩾ 0.70 indicates good internal consistency; Composite Reliability (CR) ⩾ 0.85 indicates strong reliability; Average Variance Extracted (AVE) ⩾ 0.50 indicates adequate convergent validity. HS = Homophobia Scale; AIM = Ally Identity Measure.

In Table 9, the suitability of the data for factor analysis was assessed using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity. According to Kaiser (1974), KMO values greater than 0.70 are acceptable, with values exceeding 0.90 considered excellent. Bartlett's Test of Sphericity examines whether the correlation matrix differs significantly from an identity matrix; a significant result (p<0.05) indicates sufficient correlations among variables for factor analysis. The

KMO values were 0.93 for the Homophobia Scale (HS) and 0.95 for the Ally Identity Measure (AIM), both indicating excellent sampling adequacy. Bartlett's test was highly significant (p<0.001) for both scales, with approximate chi-square values of 5241.84 (df=300) for HS and 4987.42 (df=171) for AIM. These results confirm strong inter-item correlations and support the appropriateness of proceeding with confirmatory factor analysis (CFA) on both scales.

Table 9 KMO and Bartlett's Test

Measure	HS	AIM
KMO	0.93	0.95
Bartlett's Test		
Approx. Chi-Square	5241.84	4987.42
Degrees of Freedom	300	171
p-value	*p*<0.001	*p*<0.001

Note. Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy: Values ⩾ 0.70 indicate suitable data for factor analysis, and values ⩾ 0.90 are considered excellent. Bartlett's Test of Sphericity: A significant *p*-value (< 0.050) rejects the null hypothesis of an identity matrix, confirming that variables are correlated and suitable for factor analysis. KMO values of 0.93 (HS) and 0.95 (AIM) indicate excellent sampling adequacy, and significant Bartlett's Test results (p<0.001) support factor analysis suitability.

In Table 10, all items of the Homophobia Scale had standardized factor loading ⩾ 0.60, and those of the Ally Identity Measure were ⩾ 0.61, values that reflect strong associations between observed items and their corresponding latent factors. According to Comrey and Lee (1992), factor loading ⩾ 0.60 are classified as "good" and indicate reliable item-factor relationships, while Hair et al. (2006) note that loading ⩾ 0.50 are acceptable for construct validity, with values above 0.60 signifying stronger connections.

The HS comprises 25 items across three factors: F1 (Behavior/Negative Affect), F2 (Affect/Behavioral Aggression), and F3 (Cognitive Negation). All items were retained in the optimized model, with standardized factor loading ranging from 0.60 to 0.72. Error

variances of the HS items ranged from 0.48 to 0.64, and R^2 values (the proportion of variance in each item explained by the latent factor) ranged from 0.36 to 0.52—consistent with acceptable explanatory power for scale items (Hair et al., 2006).

In Table 11, the Ally Identity Measure (AIM) consisted of 19 items across three factors: F1 (Knowledge and Skills), F2 (Openness and Support), and F3 (Oppression Awareness). All items were retained in the optimized model, with standardized factor loading ranging from 0.61 to 0.73. These values align with rigorous factor loading criteria: Comrey and Lee (1992) classified loading $\geqslant$ 0.63 as “very good” and noted that loadings above 0.60 reflect strong associations between observed items and their corresponding latent factors, while Hair et al. (2006) emphasized that loading $\geqslant$ 0.50 indicate acceptable construct validity—with values $\geqslant$ 0.60 representing strong relationships. Error variances of the AIM items ranged from 0.47 to 0.63, and R^2 values (representing the proportion of variance in each item explained by the latent factor) ranged from 0.37 to 0.53—indicating that the factors accounted for 37% to 53% of the variance in each observed item, which is consistent with acceptable explanatory power for scale items (Hair et al., 2006).

Table 10 Factor loading of the HS

Factor	Second-order Standardized Factor Loading	Item	First-order Standardized Factor Loading	Error Variance	R^2
F1(Behavior/Negative Affect)	0.83	H1	0.68	0.54	0.46
		H2	0.70	0.51	0.49
		H4	0.66	0.56	0.44
		H5	0.64	0.59	0.41
		H6	0.67	0.55	0.45
		H7	0.65	0.58	0.42
		H9	0.66	0.56	0.44
		H10	0.69	0.52	0.48
		H11	0.60	0.64	0.36
		H22	0.63	0.60	0.40
F2(Affect/Behavioral Aggression)	0.78	H12	0.71	0.50	0.50
		H13	0.68	0.54	0.46
		H14	0.66	0.56	0.44
		H15	0.67	0.55	0.45
		H17	0.66	0.56	0.44
		H19	0.64	0.59	0.41
		H21	0.70	0.51	0.49
		H23	0.68	0.54	0.46
		H24	0.65	0.58	0.42
		H25	0.69	0.52	0.48
F3(Cognitive Negation)	0.73	H3	0.72	0.48	0.52
		H8	0.70	0.51	0.49
		H16	0.68	0.54	0.46
		H18	0.71	0.50	0.50
		H20	0.69	0.52	0.48

Table 11 Factor loading of the AIM

Factor	Second-order Standardized Factor Loading	Item	First-order Standardized Factor Loading	Error Variance	R^2
F1(Knowledge and Skills)	0.88	A1	0.69	0.52	0.48
		A2	0.71	0.50	0.50
		A3	0.67	0.55	0.45
		A7	0.68	0.54	0.46
		A11	0.61	0.63	0.37
		A12	0.64	0.59	0.41
		A14	0.70	0.51	0.49
		A15	0.69	0.52	0.48
F2 (Openness and Support)	0.85	A4	0.72	0.48	0.52
		A6	0.66	0.56	0.44
		A8	0.69	0.52	0.48
		A9	0.71	0.50	0.50
		A13	0.67	0.55	0.45
		A16	0.64	0.59	0.41
		A19	0.69	0.52	0.48
F3(Oppression Awareness)	0.83	A5	0.73	0.47	0.53
		A10	0.70	0.51	0.49
		A17	0.63	0.60	0.40
		A18	0.69	0.52	0.48

In Table 12, Confirmatory Factor Analysis (CFA) was conducted to validate the three-factor structures of the HS (F1: Behavior/Negative Affect, F2: Affect/Behavioral Aggression, F3: Cognitive Negation) and the AIM (F1: Knowledge and Skills, F2: Openness and Support, F3: Oppression Awareness), followed by second-order CFA to test the overall structure. Fit indices were evaluated against recommended values:

CMIN/DF<3.0, GFI ⩾ 0.90, AGFI ⩾ 0.85, CFI ⩾ 0.90, TLI ⩾ 0.90, RMSEA<0.08, and SRMR<0.08 (Hair et al., 2019; Nunnally, 1978).

For the HS scale, the initial three-factor model showed suboptimal fit (CMIN≈1200, df=272, CMIN/DF≈4.41). Error covariances (H1↔ H2, H11↔ H22, H11↔ H12) were added based on high modification indices (MI>10), as such adjustments capture unmeasured shared variance between conceptually similar items (Hair et al., 2019). All items (including H11) were retained, and a second-order factor (overall HS) was incorporated. The optimized model demonstrated improved fit: CMIN= 496.72, df=189, CMIN/DF=2.63, GFI=0.91, AGFI=0.88, CFI=0.92, TLI=0.90, RMSEA=0.07, PCLOSE=0.05, SRMR=0.06, AIC=5206.72, NCP=307.72, HOELTER (0.05) =205.

For the AIM scale, the initial three-factor model had acceptable fit (CMIN≈400, df=149, CMIN/DF≈2.68). Optimization involved adding error covariances (A1↔ A2, A11↔ A12, A16↔ A19) — justified by theoretical support for correlating error terms of items measuring similar constructs (Hair et al., 2019) — and incorporating a second-order factor (overall AIM). The revised model showed enhanced fit: CMIN=328.45, df= 146, CMIN/DF=2.25, GFI=0.92, AGFI=0.89, CFI=0.93, TLI=0.92, RMSEA=0.06, PCLOSE=0.05, SRMR=0.05.

Table 12 Goodness-of-Fit Indices for HS and AIM

Index	Recommended Value	HS	AIM
Chi-Square	—	497(p< 0.001)	328 (p< 0.001)
CMIN/DF	< 3.00	2.63	2.25
SRMR	< 0.08	0.06	0.05
RMSEA	⩽ 0.08	0.07	0.06
PCLOSE	> 0.05	0.05	0.05
GFI	> 0.90	0.91	0.92
AGFI	> 0.85	0.88	0.89
CFI	> 0.90	0.93	0.93
TLI	> 0.90	0.90	0.92
AIC	Lower is better	5206.70	4688.50
NCP	Lower is better	307.70	212.50
HOELTER (0.05)	⩾ 200	205	215

Phase 1 validated the Chinese versions of the HS and AIM with 609 Southwest China college students, both demonstrating good psychometric properties (HS: Cronbach's α=0.93, CFI=0.92; AIM: Cronbach's α=0.97, CFI=0.93) and meeting standard criteria. Attitude analysis revealed prominent homophobic tendencies and insufficient ally identity among the sample, confirming the need for targeted interventions, laying the foundation for Phase 2's program development and pilot testing.

Results of Phase 2: Program Development and Pilot Testing

The results of phase 2 were divided into two analyses: quantitative analysis and qualitative analysis.

1.Quantitative analysis

Table 13 presented the baseline characteristics of study participants. Experimental group had 12 people (6 men and 6 women, 2 gay, 3 lesbian, and 7 heterosexual).

Table 13 Baseline Characteristics of the Study Participants(n=12)

Characteristics	n
Gender, n	
Cisgender man	6
Cisgender woman	5
Transgender women	1
Sexual orientation, n	
heterosexual	7
Gay	2
Lesbian	3
Age in year	
18-25	12
Educational level, n	
Bachelor's degree or higher	12
Local area, n	
Southwest China	12
Ethnic group	
Han ethnic group	9
Tujia ethnic group	2
Miao Ethnic Group	1

This section analyzes the preliminary effectiveness of the pilot intergroup dialogue learning program using the Homophobia Scale (HS) and Ally Identity Measure (AIM), following established psychometric and statistical standards (Cohen, 1988; Hair et al., 2019; Nunnally, 1978).

First, normality testing was conducted to justify parametric analysis. The Shapiro-Wilk test, recommended for small samples (n<30) due to its high power (Field, 2018) was used to assess data distribution. Results showed all p-values exceeded 0.05, confirming the data met the normality assumption for paired-samples t-tests. While the AIM post-test *p*-value (0.056) was marginally close to the 0.05 threshold, the small

sample size (n=12) and non-significant normality of the difference scores (p=0.112) provided insufficient evidence to reject normality, supporting the use of parametric tests.

Descriptive statistics revealed notable changes in both scales after the intervention. For the HS (higher scores indicate stronger homophobia), scores decreased substantially from pretest to post-test. For the AIM (higher scores indicate stronger ally identity), scores increased markedly over the same period. These changes were verified using paired-samples t-tests, a standard method for comparing pre-post intervention outcomes (Hair et al., 2019).

Statistical results confirmed significant differences: HS scores showed a significant decrease (t (11) =10.47, p<0.001), and AIM scores showed a significant increase (t (11) =-17.11, p<0.001). Effect sizes were quantified using Cohen's d, with thresholds defined as small (d=0.2), medium (d=0.5), and large (d=0.8) (Cohen, 1988). The Cohen's d values for HS (3.02) and AIM (4.94) both exceeded 3.00, indicating very large effect sizes—consistent with the strong practical impact of structured intergroup dialogue interventions (Dessel, 2010).

Table 14 Integrated Statistical Results of HS and AIM

Variable	Pretest ($M \pm SD$)	Post-test ($M \pm SD$)	Shapiro-Wilk (W, p)	t (df)	p-value	Cohen's d
HS	76.25 ± 17.19	32.25 ± 5.31	0.93, 0.39	10.47 (11)	< 0.001	3.02
AIM	43.08 ± 8.25	78.33 ± 3.37	0.87, 0.06	-17.11 (11)	< 0.001	4.94

Note. M = mean; SD = standard deviation; df = degrees of freedom. Normality was confirmed per Field (2018); effect sizes follow Cohen's (1988) standards.

Table Notes

1. Extreme Value Identification and Handling: Extreme values were identified using the Z-score method (Z>|3.00|). No extreme values were detected in the dataset (all Z-scores<|3.00|), so no data points were excluded or adjusted. This ensures the integrity and reliability of the statistical analysis.

2. Missing Data Handling: Missing values were examined for all variables. The missing data rate was<5% across all scales (HS and AIM), which meets the acceptable

threshold for statistical analysis. Missing values were handled using the list wise deletion method, as the low missing rate ensures no significant bias in the results.

2.Qualitative analysis

The focus group discussion and analysis results of the pilot-test study on the impact of the Intergroup Dialogue Learning Program on Homophobia and Ally Identification among college students in Southwest China were as follows:

Theme 1: The Impact of Intergroup Dialogue on Homophobia

This topic explored in depth how participants' feelings and attitudes towards homophobia changed after they completed the intergroup dialogue learning program. This included a reduction in fear of the gay and lesbian community, a reduction in prejudice against gay and lesbian people, and an increase in acceptance of the gay and lesbian community. Specifically, this theme analyzed the following aspects:

Subtheme 1.1: Acceptance Within the Gay and Lesbian Community

The participants' sense of acceptance within the gay and lesbian community was explored and analyzed following the intergroup dialogue learning program. Through a qualitative assessment of their emotional responses and personal reflections after the program, positive shifts in their attitudes toward the gay and lesbian community were observed.

"After the class, I felt that there was no difference between GL's relationships and heterosexual relationships. So, my prejudices are disappearing." Participant ID3

"After taking this class, I more agreed that gay and lesbian is also a normal emotional, psychological, and spiritual need of people, and there is no different, so my fear is also reduced." Participant ID6

"Before, I was afraid that the same sex would like me, or I liked the same sex. But after this course, I will face up to this feeling, whether I am liked by the same sex or the opposite sex, I should face up to it, there should be no discrimination." Participant ID8

Subtheme 1.2: Exploring the origins of homophobia

The meaning of this topic was explained to explore and understand the root causes of homophobia in focus group discussions. This fear could be rooted in many aspects, including but not limited to cultural traditions, personal beliefs, social circumstances, educational background, and personal experience.

"I was homophobic before the class, because when I thought of gay and lesbians, I would associate them with chaotic sexual behavior." Participant ID6

"The prejudice and pressure on the gay and lesbian community may be related to our social environment, cultural background and self-cognition." Participant ID2

Theme 2: How the Intervention Fostered Ally Identity Development

This theme explored how the intergroup dialogue learning program influenced participants' Ally Identity Development. This included analyzing whether the intervention increased participants' awareness of gay and lesbian rights, increased their compassion and motivation to support the gay and lesbian community, and whether the intervention gave them the knowledge and skills necessary to more effectively develop concrete plans and take practical action to support gay and lesbian rights activism.

Subtheme 2.1: The impact of an intervention on participants' willingness to support the gay and lesbian community

This subtheme focused on assessing how interventions increased participants' willingness to support the gay and lesbian community. Specifically, the intervention raised participants' awareness through education and discussion, giving them a deeper understanding of the challenges and needs of the gay and lesbian community, and enhancing participants' empathy and motivation for the gay and lesbian community.

"This course has enhanced my willingness and ability, because I feel that I can help my gay and lesbian friends as much as possible by learning some skills. Especially my friends around me, I will do my best to help them in the future." Participant ID7

“Through the course, I strengthened my willingness to help my gay and lesbian friends around me. If my gay and lesbian friends are in need, I am more than willing to lend a helping hand.” Participant ID10

Subtheme 2.2: Intended Strategies and Methods for Supporting the Gay and Lesbian Community

This subtheme was designed to explore the plans participants had developed to support gay and lesbian people, without focusing on the implementation phase. It examined the specific strategies they had outlined at the individual, social, and policy levels, including the steps they intended to take, the timeline for their plans, and the viability of these initiatives. Additionally, it investigated how participants intended to translate the knowledge and awareness gained from the course into actionable programs, considering aspects such as budget allocation and resource requirements.

“My plan is to change from the people around me; I have no way to influence more people. It's a plan I haven't figured out exactly how to implement, but I want to correct the discrimination against gay and lesbian people by changing the words and deeds of those around me who are prejudiced against gay and lesbian people.” Participant ID5

“I support the specific plan of gay and lesbian, which is to continue to learn and understand some knowledge and topics related to gay and lesbian, and then to carry out some popular science to the general public, so that everyone can have a correct attitude and view of gay and lesbian.” Participant ID11

Subtheme 2.3: Translating learning into real action in support of the gay and lesbian community

This topic delved into how participants, upon completion of the course, translated their knowledge and awareness into concrete actions that actually supported the gay and lesbian community. These actions were not merely symbolic but were designed to create positive change. For example, participants may have further educated themselves, attended relevant workshops or participated in community activities, provided mental health support or legal assistance. GL’s educational content and personal stories may also have been shared through social media. And a focus on

creating inclusive environments in schools and communities. They could also have become Allies in their personal and learning networks, including resisting discrimination, offering emotional support, or simply being a listening ear. This sub-theme highlighted how participants moved from learning to action, showing that their commitment to supporting the gay and lesbian community was not just theoretical, but was achieved through concrete, impactful initiatives.

"After class, I will use practical actions to influence the students around me, not to label gays and lesbians as bad, respect every gay and lesbian person, treat them as ordinary people like us, and don't define them." Participant ID9

"After class, I will start to take some action to support gays and lesbians. I would patiently tell my classmates around me that gays and lesbians are the same as heterosexuals, so that they would be less homophobic and less sensitive to the topic of gays and lesbians." Participant ID1

"The action I'm going to take is, if there are people around me who are too prejudiced against gays and lesbians, I will take the initiative to explain and introduce the relevant knowledge of gays and lesbians. And I will actively participate in gay and lesbian activities." Participant ID2

Subtheme 2.4: Reflecting on Lessons Learned After Taking Action

This subtheme focused on the experiences and lessons that participants had learned from taking action in support of the gay and lesbian community. It explored the reflective processes that followed actions and how these reflections helped participants better understand the impact of their actions and provided guidance for future actions to continuously improve their action strategies. Such as whether it had succeeded in raising public awareness of the gay and lesbian community. What strategies were effective in the implementation of activities, what needed to be improved, and the challenges and opportunities encountered in the implementation process. And whether there was a greater understanding of the challenges and needs of the gay and lesbian community. How to expand the impact of the action. This theme emphasized the importance of reflection and evaluation after

action. This continuous process of learning and improvement is essential to driving social change and supporting the well-being of the gay and lesbian community.

"My plan was to attend events in support of gay and lesbian rights, which I found very difficult to organize. Many activities are not advertised, and the audience is limited." Participant ID12

"When I was implementing the plan, especially when I saw the stigmatization of gay and lesbian on the Internet, I was attacked and even criticized when I expressed my own voice and posted my classroom knowledge on the Internet, and I felt very powerless. It is also reflected that reducing homophobia requires more social support and integration of resources." Participant ID7

Theme 3: Key Intervention Elements for Changing Participants' Attitudes Toward Homophobia

The interpretation of the meaning of this topic focused on identifying and analyzing which specific instructional elements, activities, or content in an intergroup dialogue learning program had the most significant impact on participants' attitude changes. This involved an in-depth exploration of course structure, teaching methods, how content was presented, and interactive experiences in order to understand which factors had most effectively contributed to participants' changing attitudes towards homophobia.

Subtheme 3.1: Key knowledge modules in shaping attitudes towards the gay and lesbian community in interventions

The intergroup dialogue learning program included specific sections designed to influence participants' attitudes toward the gay and lesbian community through educational content. For example, the program used the metaphor of the "gingerbread man" to explain complex concepts such as biological gender, gender expression, sexual orientation, and gender identity. Also, there was the stigma surrounding gay and lesbian, clarifying that it had nothing to do with sexual behavior disorders or sexually transmitted diseases. By debunking these myths and providing accurate information, participants could gain a deeper understanding of the different

experiences of the gay and lesbian community. This knowledge helped to eliminate stereotypes and foster a more inclusive and empathetic attitude.

"The leader explained gender gingerbread man. For the first time, I learned about the concepts of gender identity, gender expression, sexual orientation, biological gender, and the distinction between them. Let me know that when I meet different people, I can think about their gender expression, gender identity and sexual orientation in a diversified way, without prejudice and discrimination." Participant ID4

"Through this course, I have a better understanding of gay and lesbian. I learned a lot of new knowledge and heard a lot of new words, such as gender identity, gender expression, sexual orientation, transgender, etc., while also learning that gay and lesbian have nothing to do with sexual confusion and that associating HIV with gay and lesbian is stigmatizing." Participant ID5

Subtheme 3.2: The magical power of photo and video intervention tools in programs

This section highlighted the amazing power of photo and video intervention tools in intergroup dialogue learning programs, where visual materials, such as pictures and videos, are powerful teaching aids that provide intuitive and impactful information that enhances participants' perception and understanding.

For example, photos included men working together, women holding hands or leaning together in company, and same-sex couples expressing affection. These images challenged traditional stereotypes and normalized various expressions of love and partnership. The program also used videos to gain a deeper understanding of the lived experiences of gays and lesbians. Videos from Taiwan, for example, explored the challenges of coming out to family members and the emotional journey involved in gaining acceptance. In contrast, videos in Western settings highlighted the collective efforts of the gay and lesbian community to gain rights and social acceptance. The videos not only provided factual information but also resonated with shared personal stories and struggles.

By integrating these visual materials, the program harnessed the power of images to foster a more inclusive and empathetic mindset among participants.

"When I saw a video about gay and lesbian people in Taiwan coming out, I started to think about the situation of gay and lesbian people and began to understand their difficulties." Participant ID1

"What influenced me the most was watching pictures and videos. Pictures of girls holding hands we will think is normal, but boys holding hands will be made fun of. The gay and lesbian views on family in the video touched me. It helped me see the unfriendliness and discrimination they faced in real life and changed my preconceived prejudice." Participant ID11

Subtheme 3.3: The role of interactive discussion in reshaping perceptions of gays and lesbians in an intervention

Interactive discussions in group dialogue learning programs were educational activities designed to facilitate the exchange of ideas, sharing of feelings, and discussion of issues among participants. For example: Participants brought in three objects that represented their gender identity, triggering conversations about personal experiences and the complexities of gender expression. The discussion also delved into the impact of media representations on sexual orientation, heterosexuals' views on non-traditional family structures, and the debate over legalizing gay and lesbian marriage. Overall, these interactive discussions provided a comprehensive platform for participants to engage with complex issues, challenge stereotypes, and develop more inclusive attitudes toward the gay and lesbian community.

"The display and sharing of the three gender representative items brought by everyone let me know more about different people's experiences and living habits. In the future, if I meet LGBT people, I will not treat them with curiosity, but with respect and understanding." Participant ID9

"What impressed me most was the discussion in groups of three after showing the pictures. Everyone could speak their own thoughts, so that we could deeply communicate about the topic of gay and lesbian." Participant ID3

"My favorite part was the free discussion. Through discussion, we could open our hearts, speak out the truest ideas, and communicate with each other. It could increase the closeness of the group, and it could also let the previous doubts be answered." Participant ID2

Subtheme 3.4: How Facilitators Shaped Discussions on the gay and lesbian Community

In panel discussions about the gay and lesbian community, the role of the facilitator was crucial. They shaped the atmosphere and direction of discussions in a number of ways, thereby fostering a deeper understanding and attitudinal change among participants towards the gay and lesbian community. For example, facilitators built empathy with participants by sharing their own personal experiences. They ensured fairness and objectivity by fostering an open, accepting and respectful discussion environment that avoided judgment on any point of view. They demonstrated an open mind, respect for others and active participation, and were role models for participants. Through their own actions, the facilitator set a positive example for the participants and helped them to show a more mature and inclusive attitude in the discussion, thus moving the group in a more positive direction.

"I felt very good in the group, the leader took care of everyone's emotions, the atmosphere was very good, everyone felt it, there was no right or wrong dialogue in the group, everyone spoke bravely." Participant ID9

"After joining the group, everyone started to be more distant, and when the leader shared her personal experience, the atmosphere became more relaxed, people were less inhibited, they felt safe, and they were more willing to tell their own stories." Participant ID4

Theme 4: A comprehensive exploration of tailor intervention improvement and enhancement

The role of facilitators was crucial in the intervention programs aimed at reducing homophobia and increasing alliance among university students, but the current intervention still had many weaknesses and needed to be further improved and upgraded. Such as the influence of facilitators on participants' participation, the

inadequacy of promoting participants' action planning and implementation, the deviation of discussion focuses from the core issues, the insufficient time management and facilitators' intervention. Through improvement, there was a need to address the weaknesses of current interventions, improve the effectiveness of facilitators' interventions, ensure that each session could be completed within the specified time, and improve the quality and depth of discussions. This would not only help reduce homophobia and increase alliances but also enhance tailored interventions.

Subtheme 4.1: Boosting Engagement and Motivation in Intervention Sessions

The influence of facilitators on participants' engagement may not have had the desired effect. Facilitators sometimes dominated the discussion too much or failed to effectively lead silent participants to speak. For example, in a group discussion, the facilitator may have failed to motivate all participants, resulting in some participants remaining silent during the discussion.

"Today's discussion was divided into two groups. In the process, some students may have been neglected, resulting in low participation." Participant ID4

"When people discuss some heterosexual topics, the voice of gay and lesbian is sometimes weakened, hoping that the leader can guide and see more, so that both sides can carry out dialogue on the same topic." Participant ID12

Subtheme 4.2: Empowering action through effective support for interventions

Deficiencies of facilitators in facilitating the planning and implementation of participants' actions were found. Facilitators may have failed to effectively guide participants to translate discussion into practical action, resulting in some intervention effects remaining theoretical. For example, some participants had a will, and some had a plan, but they only stayed in their heads and in writing and were unable to carry out practical actions to support gay and lesbian in reality.

“As for the plan, I am not sure how to carry it out. I can only start with myself. I will not emphasize my friends' gay and lesbian identity too much and respect them. More how to do it, I have some difficulty.” Participant ID10

“My attitude towards gay and lesbian has changed from prejudice to respect. If there is a plan, there is no very grand plan, or too little contact.” Participant ID3

Subtheme 4.3: Tackling Broader Issues While Focusing on Core Goals in Interventions

In the program, discussions sometimes veered away from the core issue of homophobia and toward concerns about the government and the larger environment. This deviation led to issues of fear and prejudice against the gay and lesbian community not being fully explored. For example, in a discussion, participants’ concerns about government policies, and the general environment took up most of the time, resulting in the issue of fear and prejudice against the gay and lesbian community not being explored in depth. The facilitator failed to adjust the direction of the discussion in time, which led to the discussion deviating from its original intention.

“Today, the course content gradually deviated from the topic, everyone from homophobia to the anxiety of having children in today's society, and the feeling of sometimes being like a puppet in the environment, the whole process was not too much to stop the leader.” Participant ID10

“We talked about some hot topics in society, which seemed to be a little different from the part of homophobia. The leader did not intervene too much. During the process, I felt a little depressed and lost, and I had a sense of powerlessness.” Participant ID11

Subtheme 4.4: Mastering time and presenter skills to get the intervention on track

In the program, the facilitator’s insufficient intervention in time management led to the participants’ sharing time in some links being too long, resulting in insufficient discussion of some important topics, thus weakening the intervention effect and affecting the overall discussion process and integrity. For example, in the

opening warm-up session, some participants spent too much time sharing their recent experiences, and the facilitator failed to remind or intervene in a timely manner, leading to other participants feeling disrespected, resulting in insufficient time for follow-up discussions on hot topics.

"In two sessions, the time control of the group was not very good, and there were some timeouts. Especially when sharing the recent status and experience of everyone, some participants are too detailed, which takes up more time, resulting in insufficient time for the main links in the following. I hope that every link can be completed within the specified time." Participant ID8

"Sometimes the leader takes a long time in the question-and-answer session, tells a little too much stuff, and compresses the discussion part of the participants. I hope there will be more time for a free discussion." Participant ID5

Figure 7 presents a thematic map of the four core themes and subthemes from the Phase 2 qualitative analysis (pilot-test study). The map organizes the findings into four branches: Deconstruction of Homophobic Cognition, Development of Ally Identity, Catalytic Intervention Elements, and Intervention Optimization. Each subtheme includes a brief description and its alignment with research goals. The map illustrates participants' cognitive shifts, emerging ally identity, effective program elements, and suggestions for intervention improvement.

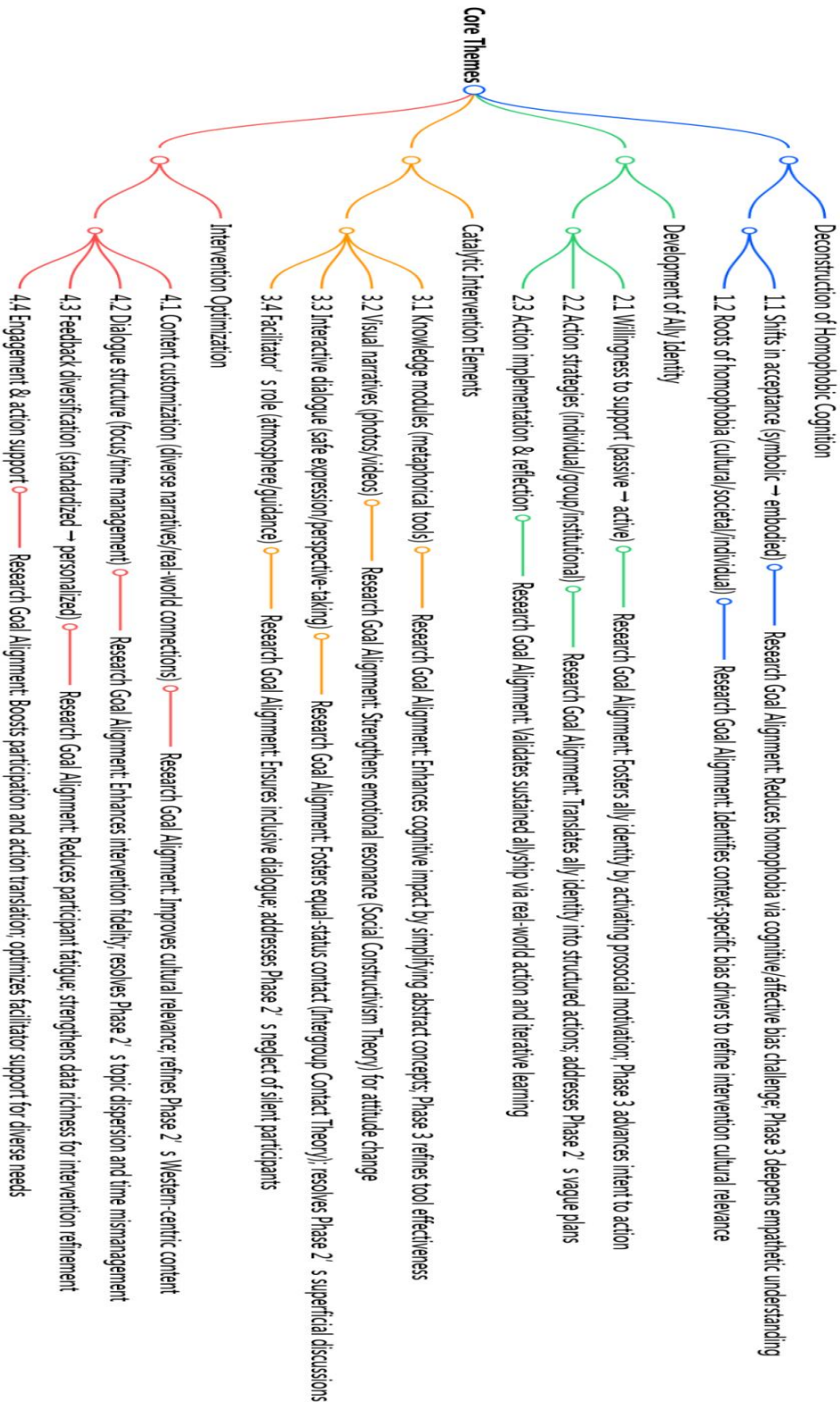

Figure 7 Structure Diagram of phase 2 Qualitative analysis

Phase 2 program development and pilot testing (n=12) demonstrated preliminary effectiveness of the intergroup dialogue learning program. Quantitative results showed significant reductions in homophobia (HS: 76.25⟶32.25, p<0.001) and increases in ally identity (AIM: 43.08⟶78.33, p<0.001), with large effect sizes (Cohen's d=3.02–4.94). Qualitative analysis confirmed the program's alignment with core goals, identified key effective elements (knowledge modules, visual tools, dialogue, facilitation), and highlighted areas for improvement (engagement, action support, focus/time management). These findings validate the program's potential and provide clear guidance to tailor program for Phase 3, where a larger sample and formal evaluation will further test its effectiveness in reducing homophobia and enhancing ally identity among Southwest China's college students.

Results of Phase 3: Sequential Explanatory Mixed Method Design

The results of phase 3 were divided into two analyses: quantitative analysis and qualitative analysis.

1. Quantitative analysis

Table 15 showed the baseline characteristics of study test participants. Experimental group 1 had 15 people (7 men and 8 women, 3 gay, 3 lesbian, and 9 heterosexual). Experimental group 2 had 15 people (9 men and 6 women, 2 gay, 4 lesbian, and 9 heterosexual). Control group had 15 people (5 men and 10 women, 2 gay, 4 lesbian, and 9 heterosexual).

Table 15 Baseline Characteristics of the Study Participants(n=45)

Characteristics	The total	Experimental group	Control group
Gender, n			
Cisgender man	21	16	5
Cisgender Woman	23	13	10
Transgender women	1	1	0
Sexual orientation, n (%)			
heterosexual	27	18	9
Gay	7	5	2
Lesbian	11	7	4
Age, n			
18-25	45	30	15
Educational level, n			
Bachelor's degree	45	30	15
Local area, n			
Southwest China	45	30	15
Ethnic group			
Han ethnic group	39	26	13
Tujia ethnic group	4	3	1
Miao Ethnic Group	2	1	1

Building on the original intervention framework, this study developed a tailored intervention program through systematic adjustments across multiple dimensions, as detailed in Table 16 and Figure 8. These modifications, encompassing participant recruitment, experimental grouping, assessment protocols, intervention settings, and the specific content of each session, were designed to enhance the comprehensiveness, validity, and practical impact of the intervention. The following sections will elaborate on the implementation process of this tailored intervention and analyze its effectiveness,

aiming to provide insights into group-based intervention approaches for issues related to gay and lesbian.

Table 16 Key Adjustments from Phase 2 to Phase 3

Project Type	Phase 2 (Pilot Intervention)	Phase 3 (Tailored Intervention)	Core Adjustment Reason from Phase 2 Qualitative Data	Theoretical Foundation
Participant Recruitment	Poster recruitment	Poster recruitment + LGBTQ+ community partnerships + mental health center referrals	– (Quantitative need: increase sample diversity)	–
Experimental Grouping & Size	1 experimental group (n=12)	2 experimental groups (n=15 each) + 1 control group (n=15)	"Need larger sample to compare results" (research team reflection)	Quasi-experimental design requirement
Scale Testing Times	Pretest, post-test	Pretest, post-test, follow-up test	"Want to know if the change lasts" (multiple participants)	Long-term effect evaluation
Site & Materials	Open space with chairs and multimedia	Basic setup + paper cups, tissues, air conditioning	"The environment felt too cold, hope to be more comfortable" (ID7)	Intergroup Contact Theory: Institutional support
Facilitator dominance & silence inclusion	Facilitators spoke too much; many stayed silent	Mandatory "talking piece" + "step-up/step-back" + trained invitation of silent participants	"Some students may have been neglected… hoping the leader can guide and see more" (ID4) "The voice of gay and lesbian is sometimes weakened" (ID12)	Intergroup Contact Theory: Equal status
Action implementation support	Plans remained theoretical	Added Action Commitment Worksheet + WeChat follow-up at 1 week & 1 month	"I am not sure how to carry it out… I have some difficulty" (ID10) "There is no very grand plan, or too little contact" (ID3)	Ally Identity Development: Action & reflection cycle
Prevention of topic drift	Frequently shifted to policy/society	"Parking lot" board + trained "return-to-core" questions	"The course content gradually deviated from the topic… the whole process was not too much to stop the leader" (ID10) "The leader did not intervene too much… I felt depressed and lost" (ID11)	Intergroup Contact Theory: Common goals
Time management	Warm-up & sharing often overran	Visible countdown timer + strict timed agenda + facilitator time-training	"Some participants are too detailed, which takes up more time, resulting in insufficient time for the main links" (ID8) "The leader takes a long time… compresses the discussion part" (ID5)	Intergroup Contact Theory: Institutional support (structured process)

Project Type	Phase 2 (Pilot Intervention)	Phase 3 (Tailored Intervention)	Core Reason for Adjustment from Phase 2 Qualitative Data	Theoretical Foundation
Session 1 (Group Beginnings)	Lecture: Dialogue vs. Debate; Gender Gingerbread Man	Added lectures: "Sexual Orientation/Gender Identity Myths & Truths"; "LGBTQ+ Love/Sexual Attitude Myths"	“Many people still confuse gender identity and sexual orientation” (ID2)	Social Constructivism: Cognitive restructuring (Vygotsky, 1978)
Session 2 (Exploring Differences)	Emotion map sharing; Group discussion on media-portrayed sexual minority behaviors	Goldfish bowl activity (heterosexual/gay and lesbian groups discuss similar topics: marriage, children, sex attitudes)	“Superficial sharing, need real perspective-taking” (ID9)	Intergroup Contact Theory: Equal status & cooperation (Allport, 1954)
Session 3 (Hot Topic Dialogue)	Gallery activity; Large group sharing	Added "conversation starter" (personal homophobia-related experiences) + Gallery activity	“Need to focus on core homophobia, not just general topics” (ID11)	Intergroup Contact Theory: Common goals
Session 4 (Action Planning)	Action plan development & continuity discussion	Action plan + concrete group tasks (e.g., advocacy letters, campus seminars, art creation)	“We have ideas but don’t know how to actually do it” (ID10)	Ally Identity Development: Action cycle (Jones et al., 2014)
Session 5 (Group Feedback)	Group action experience sharing; Facilitator guidance	Completed project presentations + individual/collective reflection	“Hope to see everyone’s actual outcomes” (ID6)	Ally Identity: Reflection & sustained action (Suyemoto & Hochman, 2021)

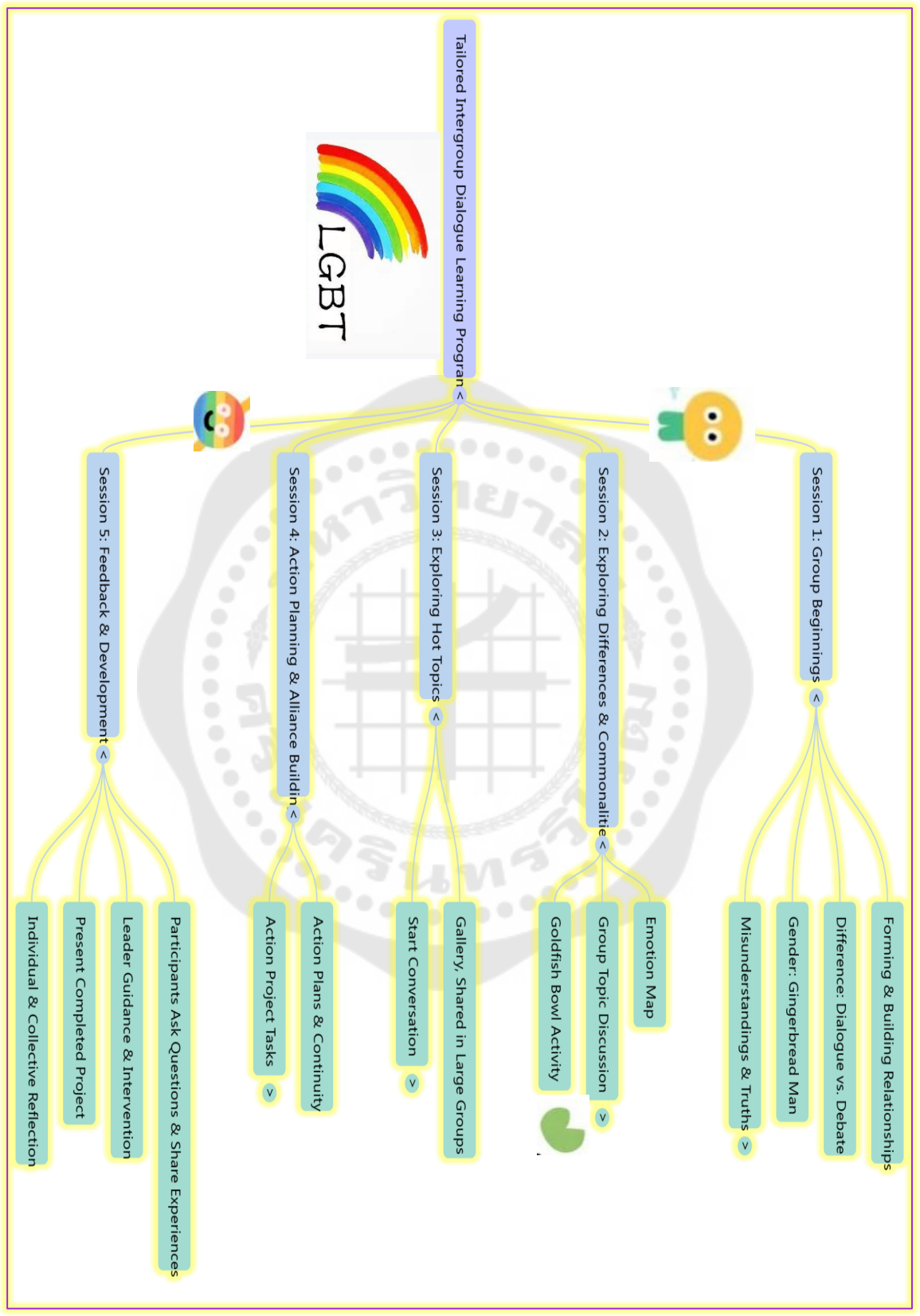

Figure 8 Tailor Intergroup Dialogue Learning Program

A two-way multivariate analysis of covariance (MANCOVA) with repeated measures was used to examine the effects of the intergroup dialogue learning program on homophobia (measured by the Homophobia Scale and ally identity (measured by the Ally Identity Measure). The experimental groups were combined into a single "Exp" group (n=30) for analysis and were compared against the control group ("Ctrl"; n=15). The dependent variables were post-test and follow-up scores on HS and AIM. Independent variables included Group (between-subjects: Exp vs. Ctrl) and Time (within-subjects: post-test vs. follow-up). The covariates were pretest HS and AIM scores.

Table 17 presents means and standard deviations for HS and AIM across pretest, post-test, and follow-up. The Exp group showed substantial HS reductions (pretest: 55.37, follow-up: 32.63) and AIM increases (pretest: 57.47, follow-up: 83.43). In contrast, the Ctrl group had stable HS scores (50.73 to 55.00) and minimal AIM gains (60.07 to 64.87). Average scores (post-test + follow-up/2) reinforced these group differences.

Table 17 Means and Standard Deviations for HS and AIM Scores by Group and Time

Group	Measure	Pretest *M* (*SD*)	Post-Test *M* (*SD*)	Follow-Up *M* (*SD*)	Average *M* (*SD*)
Exp (n = 30)	HS	55.37 (17.49)	36.10 (7.79)	32.63 (5.87)	34.37 (6.25)
	AIM	57.47 (9.41)	80.73 (5.36)	83.43 (6.18)	82.08 (5.52)
Ctrl (n = 15)	HS	50.73 (14.91)	53.53 (14.23)	55.00 (16.87)	54.27 (14.92)
	AIM	60.07 (12.33)	61.00 (10.38)	64.87 (12.62)	62.93 (10.92)

Note. *M* = mean; *SD* = standard deviation. Average scores are computed as (post-test + follow-up)/2 for MANCOVA modeling.

Table 18 summarizes key assumption tests for the MANCOVA. Multivariate normality (Shapiro-Wilk tests, all $p<0.001$) and homogeneity of covariance matrices (Box's M tests, all $p<0.001$) were violated. Sphericity was met (Mauchly's W = 1.00, $p=1.000$). Violations were addressed using Pillai's Trace, a robust statistic for such deviations. No outliers or missing values were detected.

Table 18 Summary of Assumption Tests for Two-Way Repeated Measures MANCOVA

Assumption	Test/Variable	Statistic	*p*-value
Multivariate Normality	Shapiro-Wilk (Post-Test HS)	W = 0.88	<0.001
	Shapiro-Wilk (Follow-Up HS)	W = 0.82	<0.001
	Shapiro-Wilk (Post-Test AIM)	W = 0.90	<0.001
	Shapiro-Wilk (Follow-Up AIM)	W = 0.88	<0.001
Homogeneity of Covariances	Box's M (Post-Test: HS & AIM)	M = 18.28 χ^2 (3) = 17.13	<0.001
	Box's M (Follow-Up: HS & AIM)	M = 30.71 χ^2 (3) = 28.78	<0.001
Sphericity	Mauchly's (HS & AIM)	W = 1.00 (2 levels)	1.000

Note. Violations of multivariate normality and homogeneity of covariance matrices were addressed using the robust Pillai's Trace statistic. No extreme outliers were identified (all Z-scores<|3.0|), and missing data were minimal (<5%) with listwise deletion applied.

Table 19 shows multivariate effects using Pillai's Trace. A significant main effect of Group was found (Pillai's Trace = 0.77, F (2, 40) = 65.78, p< 0.001, partial η^2 = 0.77), indicating overall differences between groups on combined HS and AIM scores. The main effect of Time (Pillai's Trace = 0.02, F (2, 40) = 0.35, p= 0.71, partial η^2 = 0.02) and Group × Time interaction (Pillai's Trace = 0.12, F (2, 40) = 2.78, p= 0.074, partial η^2 = 0.12) were non-significant.

Table 19 Multivariate Tests of Effects Using Pillai's Trace

Effect Type	Effect	Pillai's Trace	*F*	df (Num, Den)	*p*-value	Partial η^2
Between-Subjects	Group	0.77	65.78	2, 40	<0.001	0.77
	Pre-HS	0.45	16.56	2, 40	<0.001	0.45
	Pre-AIM	0.43	15.06	2, 40	<0.001	0.43
Within-Subjects	Time (Intercept)	0.02	0.35	2, 40	0.709	0.02
	Group × Time	0.12	2.78	2, 40	0.074	0.12
	Pre-HS (on Diff)	0.01	0.25	2, 40	0.776	0.01
	Pre-AIM (on Diff)	0.00	0.07	2, 40	0.930	0.00

Note. Partial η^2 = 0.01 (small), 0.06 (medium), 0.14 (large) (Cohen, 1988). Significant effects (p<0.050) are bolded in the interpretation.

Univariate analyses (Tables 20 & 21) clarified the multivariate effect. For HS, the Experimental group had significantly lower scores (Group main effect: coefficient = -19.62, z=-6.67, p<0.001, partial η^2 = 0.52) and showed a significant Group × Time interaction (coefficient=-4.67, z=-2.29, p=0.022, partial η^2 = 0.11), indicating continued reduction in homophobia over time in the Experimental group. For AIM, the Experimental group had significantly higher scores (Group main effect: coefficient=21.18, z=9.79, p<0.001, partial η^2=0.70). Pretest scores were significant covariates for both outcomes (all p< 0.001), improving the precision of the analysis.

Table 20 Univariate Tests for HS Using Mixed Linear Model

Effect	Coefficient	z-value	*p*-value	Partial η^2
Intercept	35.36	7.59	<0.001	-
Group (Exp vs. Ctrl)	-19.62	-6.67	<0.001	0.52
Time (Post vs. Follow-Up)	0.93	0.55	0.583	0.01
Group × Time	-4.67	-2.29	0.022	0.11
Pre-HS	0.37	4.73	<0.001	0.35

Note. Model: HS ~ Time * Group + Pre-HS (random intercept: participant ID).

Table 21 Univariate Tests for AIM Using Mixed Linear Model

Effect	Coefficient	z-value	*p*-value	Partial η^2
Intercept	36.89	6.83	<0.001	-
Group (Exp vs. Ctrl)	21.18	9.79	<0.001	0.70
Time (Post vs. Follow-Up)	3.21	2.02	0.043	0.09
Group × Time	-0.47	-0.25	0.805	0.00
Pre-AIM	0.38	4.42	<0.001	0.32

Note. Model: AIM ~ Time * Group+Pre-AIM (random intercept: participant ID).

Figure 9 consists of two side-by-side line plots for a two-way MANCOVA with repeated measures. The left plot, which corresponds to the Homophobia Scale (HS), presents time points (pretest, post-test, follow-up) on the x-axis and HS scores on the y-axis; the line representing the 'Exp' group exhibits a steeper downward slope than that of the 'Ctrl' group, an observation that indicates the intervention more effectively

reduced homophobia over time. The right plot, associated with the Ally Identity Measure (AIM), features the same time points on the x-axis and AIM scores on the y-axis; here, the line for the 'Exp' group shows a more pronounced upward trend compared to the 'Ctrl' group, a pattern that suggests the intervention enhanced ally identity. Overall, Figure 9 demonstrates the interaction between group and time with respect to these two measures.

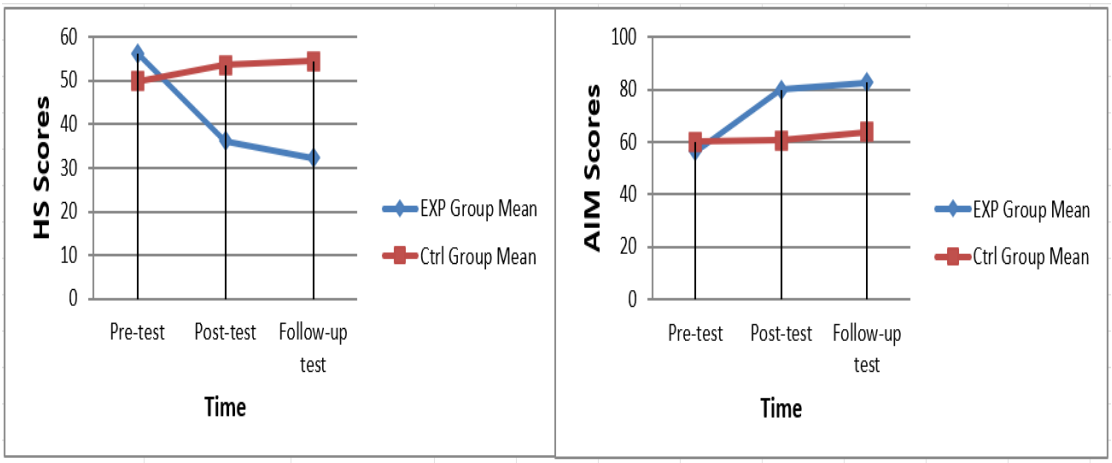

Figure 9 Changes in Homophobia Scale and Ally Identity Measure Scores by Group and Time in a Repeated - Measures Design

Table Notes

1. Extreme Value Identification and Handling: Extreme values were identified using the Z-score method (Z>|3.0|). No extreme values were detected in the data set (all Z-scores<|3.0|), so no data points were excluded or adjusted. This ensures the integrity and reliability of the statistical analysis.

2. Missing Data Handling: Missing values were examined for all variables. The missing data rate was <5% across all scales (HS and AIM), which meets the acceptable threshold for statistical analysis. Missing values were handled using the list wise deletion method, as the low missing rate ensures no significant bias in the results.

2. Qualitative analysis

The focus group discussions in this phase aimed to explore the mechanisms of the tailored intergroup dialogue learning program in deconstructing homophobic attitudes and constructing ally identity among college students in Southwest China. The

discussions also verified the program's practical effects and identified improvement directions.

Thirty participants from the experimental group were divided into two balanced groups (15 per group, with mixed gender and sexual orientation, including heterosexual, gay, and lesbian individuals). Each group participated in a 90-minute semi-structured focus group interview, focusing on intervention experiences, cognitive changes, action practices, and suggestions for improvement.

Thematic analysis was conducted as described in Chapter 3, achieving saturation. This analysis not only corroborated the quantitative improvements (e.g., reduced homophobia scores and enhanced ally identity) but also revealed the program's mechanisms, including deconstruction of homophobic cognition, behavioral enactment of ally identity, and the promoting effects of customized elements. Compared to the pilot phase, the tailored program advanced from "cognitive-only" adjustments to a multidimensional integration of cognition, emotion, and behavior.

Theme 1: Breaking Prejudice - The Deconstructing Effect of Tailored Intergroup Dialogue Learning Program on Homophobic Cognition

Unlike the pilot-test, which primarily achieved superficial attitude adjustments (e.g., "reduced fear without addressing root causes"), the tailored intergroup dialogue learning program systematically dismantled homophobic cognition through targeted, group-adapted strategies aligned with participants' cultural backgrounds, belief systems, and lived experiences. This deconstruction operated across three interconnected layers: cultural discipline, social narratives, and individual cognition and was validated by participants' shifts from "viewing gay and lesbian as 'deviant'" to "recognizing their experiences as universal human emotions."

Subtheme 1.1 Qualitative Leap in Acceptance: From Symbolic Labeling to Embodied Understanding

Compared with the pilot-test, where acceptance was still limited to cognitive cognition (for example, "I know they are not abnormal, but still feel alienated"), the tailored intergroup dialogue learning program, designed through interactive

experience, promoted dual breakthroughs in cognition and emotion (for example, one-on-one conversations with sexual minorities, empathy through videos and live stories). This transformation was reflected in the participants' ability to associate the abstract "acceptance" with concrete empathy.

"I used to think the gay and lesbian community was chaotic, but now I understand that it's a matter of personal character rather than sexual orientation—their relationships are just as sincere as those of heterosexuals." Participant ID3

"When the guy in the video said, 'we're not that different,' it suddenly hit me that my prejudice stemmed from unfamiliarity with them, not from anything inherent to who they are." Participant ID9

"Now I'm more willing to be close friends with them. In high school, I always tried to find their 'differences', but now I realize there's no essential distinction at all." Participant ID7

Subtheme 1.2 Three-Dimensional Deconstruction of Homophobia Roots: Interweaving of Culture, Society, and Individual

The pilot-test widely attributed homophobia to "social environment", while the tailored intergroup dialogue learning program addressed the root causes of specific situations through customized modules, including cultural discipline, social narrative and personal cognition. This included: the concept of "yin-Yang harmony" in traditional Chinese culture (such as religious discipline); The media's hegemonic narrative of heterosexual (for example, the media's morbid portrayal of gay and lesbian); And the individual's fear of "deviating from the mainstream" (for example, parents' anxiety about having children).

"Homophobia arises from seeing them as 'others', similar to the divide based on skin color. At its core, it's fear of 'difference'." Participant ID1

"My parents always worried that gay and lesbian people can't continue the family line. This idea influenced me from a young age, and now I realize it's the result of cultural indoctrination." Participant ID14

"The religious notion that 'gay and lesbian is a sin' runs deep. Historical discriminatory labels make it hard to eradicate prejudice." Participant ID26

Theme 2: From Cognition to Action – The Emergence and Practice of Ally Identity in tailored intergroup dialogue learning program

Through dual pathways of emotional empathy (e.g., compassion triggered by videos) and value rationality (e.g., recognition of equal rights), the intervention transformed participants' willingness to support from "passive observation" to "active engagement," and facilitated the formation of concrete action plans. Typical cases included media advocacy (TikTok initiatives), institutional proposals (suggestions for gender-neutral restrooms), and symbolic practices (rainbow badges), representing a deeper level of action compared to the pilot-test study.

Subtheme 2.1 Dual Activation of Support Willingness: Synergistic Drive of Emotional Resonance and Value Rationality

Unlike the pilot tests that mainly rely on emotional appeal, after the tailored intergroup dialogue learning program, participants' willingness to support showed dual activation in emotional and cognitive dimensions. For example, at the emotional level, participants developed prosocial motives driven by empathy; at the cognitive level, they formed supportive intentions based on the value rationality of "equal rights", shifting from "neutrality" to "active assistance".

"Now, when I hear discriminatory remarks, I will take the initiative to stop them. Before, I might have stayed silent for fear of conflict." Participant ID4

"I want to make videos on Douyin to show the daily lives of gay and lesbian people, so that more people can see they are no different from us." Participant ID6

"If a gay or lesbian friend asks for help, I will definitely do my best to assist them. As a vulnerable group, they need more support." Participant ID8

Subtheme 2.2 Hierarchical Construction of Action Strategies: A Linked Design Across Individual, Group, and Institutional Levels

Based on the vague pilot-test "Change the People Around You" program, the participants of the tailored intergroup dialogue learning program developed a three-level action framework consisting of "individual symbolic practice,

group media advocacy, and institutional environment transformation." For instance, at the individual level, support was expressed through symbols like rainbow badges; at the group level, positive narratives were disseminated via media such as Douyin and WeChat Moments; at the institutional level, initiatives were proposed for environmental modifications, including gender-neutral restrooms and campus mental health hotlines. Compared to the single-action model in the pilot-test study, this framework was more systematic and operable.

"I plan to wear a rainbow badge to send a signal that 'I am willing to help,' just like the cases we saw in the program." Participant ID5

"I suggested that the school set up a dedicated mental health hotline for gay and lesbian students. I've already started collecting classmates' opinions, hoping it can truly help those in need." Participant ID10

"I intend to share gay and lesbian-themed films on WeChat Moments, using visual stories to break down the stereotypes of people around me." Participant ID13

Subtheme 2.3 Embodied Implementation of Practical Transformation: A Revolutionary Leap in the Efficiency of Translating Intentions into Actions

The pilot-test "action" was theoretical (for example, "I will explain the bias to my friends"), but the participants of the tailored intergroup dialogue learning program had translated their plans into concrete actions, with the post-intervention action conversion rate showing improvement compared to the pilot-test study. For example, participants mentioned that their Douyin videos had entered the material shooting stage; they had collaborated with classmates to submit proposals for gender-neutral restrooms to the student union; and wearing rainbow badges had sparked discussions among people around them.

"Last week, I shot the first short video, which features the daily work scenes of gay and lesbian individuals. I want people to see their ordinary side." Participant ID15

"Three classmates and I jointly submitted a proposal for gender-neutral restrooms to the student union. Although we're still waiting for a response, at least we've taken the first step." Participant ID18

"Now I consciously share materials related to gay and lesbian rights in the class group. Unexpectedly, some classmates have actually started to discuss them actively." Participant ID19

Theme 3: The Catalytic Role of Intervention Elements – Core Drivers of Attitudinal Change

The tailored intergroup dialogue learning program addressed the limitations of the pilot-test by optimizing four key elements, such as low knowledge absorption efficiency and superficial interaction. Each core intervention element was adapted to the participants' learning styles, cultural backgrounds and feedback from pilot tests. For instance, metaphorical tools enhanced the clarity of concepts; Group debates had facilitated a shift in viewpoints. Video intervention enhanced the emotional resonance of the subjects. The guiding strategy created a safer atmosphere, etc.

Subtheme 3.1 Knowledge Modules: Systematic Transformation of Cognitive Schemas via Metaphorical Tools

Unlike the basic "gingerbread man gender" explanation of the pilot-test (based on the feedback from the pilot-test, participants would feel confused), the tailored intergroup dialogue learning program used visual metaphors for knowledge modules such as the "gender gingerbread man" utilized visual metaphors to convert the abstract relationships between "biological sex, gender, and sexual orientation" into concrete mappings—comparable to "cookie shape, frosting decoration, and filling flavor." This broke down participants' essentialist cognition that "sexual orientation is inherently linked to gender expression."

"The gender gingerbread man in the first class allowed me to systematically understand transgender identities and sexual orientations for the first time. I had completely confused these concepts before." Participant ID11

“The teacher used the gingerbread man to met aphorize sexual orientation as an ‘innate filling flavor,’ which completely overturned my perception that 'being gay or lesbian is a Unnatural choice.” Participant ID2

Subtheme 3.2 Visual Narratives: Emotional Penetration and Embodied Resonance in Video Interventions

Unlike the pilot-study, the tailored intergroup dialogue learning program focused more on the details of video content. Coming-out videos from Taiwan and images of equal rights movements activated participants’ sense of experience through a dual narrative thread of "individual stories + collective activism." For instance, details in the videos such as “a mother’s shift from opposition to acceptance” triggered intense emotional resonance, resulting in stronger empathy than textual descriptions.

“When the Taiwanese boy said ‘we’re just falling in love with someone’ after coming out, I cried on the spot. It was the first time I understood their courage.” Participant ID12

“Everyday scenes of same-sex couples holding hands in the photos shattered my biased association that ‘intimacy equals romance.’ It turns out friendship can also be expressed this way.” Participant ID28

Subtheme 3.3 Interactive Field: Dialogue Rituals as a Catalyst for Cognitive Decentralization

To address the issues of “superficial discussions” and “dominant voices overwhelming quiet participants” in the pilot-test, the tailored intergroup dialogue learning program designed a combination of internal-external group discussions and item-sharing sessions, which formed an interactive closed loop of “safe expression and attentive feedback.” Participants achieved cognitive perspective shifts through others’ gender-identity items (e.g., scented paper or mirrors carried by male participants). Within discussions, “dual-perspective debates”—such as clashes of viewpoints on procreation between heterosexual and gay/lesbian individuals—effectively facilitated cognitive restructuring.

"During the circle-sharing of gender-identity items, a male classmate bringing a cute mirror suddenly made me realize that gender expression can be so diverse; there's no 'supposed' way to be." Participant ID22

"In the group discussion on procreation, hearing the genuine anxiety of gay and lesbian classmates worried about 'being unable to provide a complete family for children' made me understand that their stress far exceeds the prejudice itself." Participant ID17

Theme 4: Iterative Optimization of Intervention Design – Upgrading Path Based on Participant Feedback

Participant feedback revealed four key improvement directions for the tailored intervention: introducing diverse narratives at the content level, strengthening issue structuring at the dialogue level, optimizing rhythm at the time level, and breaking through standardized models at the feedback level. These suggestions had upgraded the intervention from a "one-size-fits-all design" to a "dynamically adaptive" one, with core indicators (such as acceptance and action rates) showing improvement compared to the pilot-test study.

Subtheme 4.1 Content Customization: Deepening Diverse Narratives and Real-World Connections

Participants suggested introducing gay and lesbian narratives across age and occupation groups (e.g., cases of coming out in the workplace) and increasing on-site public welfare activities (such as visits to support groups).

"I hope we can invite people from different professions who have come out—like doctors or teachers—to share their experiences. It would feel more direct and real than watching videos." Participant ID20

"Maybe the teacher could lead us to participate in gay and lesbian public welfare activities, such as helping organize lectures. It would have a stronger impact than in-class discussions." Participant ID21

"As a Christian, the teacher had a one-on-one conversation with me about the relationship between faith and inclusivity. This was more helpful in resolving my confusion than unified lectures." Participant ID25

Subtheme 4.2 Structuring Dialogues: Synergistic Optimization of Issue Focus and Time Efficiency

Participants reported the issue of “topic dispersion” in discussions, suggesting the adoption of a “ladder of controversial issues” (e.g., from “gender-neutral restrooms” to “marriage equality”) and the extension of single-session duration.

“Discussions often turn into aimless sharing. It would be more effective if we could focus on specific issues like ‘the viability of gender-neutral restrooms.’” Participant ID30

“Every time we just get into the flow, the session ends. I suggest extending the 90-minute duration to 2 hours, so that we can at least delve thoroughly into one issue.” Participant ID27

“We could design a problem tree to guide discussions, for example, moving step by step from ‘gender expression’ to ‘legal rights.’” Participant ID29

Subtheme 4.3 Diversification of Feedback: Innovation from Standardized Questionnaires to Personalized Output

Traditional standardized questionnaires had caused participant fatigue, prompting suggestions for a combined feedback approach using “emotional doodling, action logs, and concept maps.” For instance, participants noted that this approach “avoids repeating answers to the same questions.”

“After-class assignments are almost the same every time. It’s suggested that they be designed based on the content of each session—like writing a reflection after watching a video.” Participant ID23

“Recording emotional changes through drawing is much more interesting than filling out forms, and I’m more willing to express my true thoughts.” Participant ID16

“We could be asked to draw ‘concept maps’ to connect the knowledge learned in each session. This would better show our cognitive changes.” Participant ID24

Figure12 is the structural framework of Phase 3 qualitative analysis (covering four core themes: deconstructing homophobic cognition, developing ally identity, catalytic intervention elements, and optimizing the intervention).

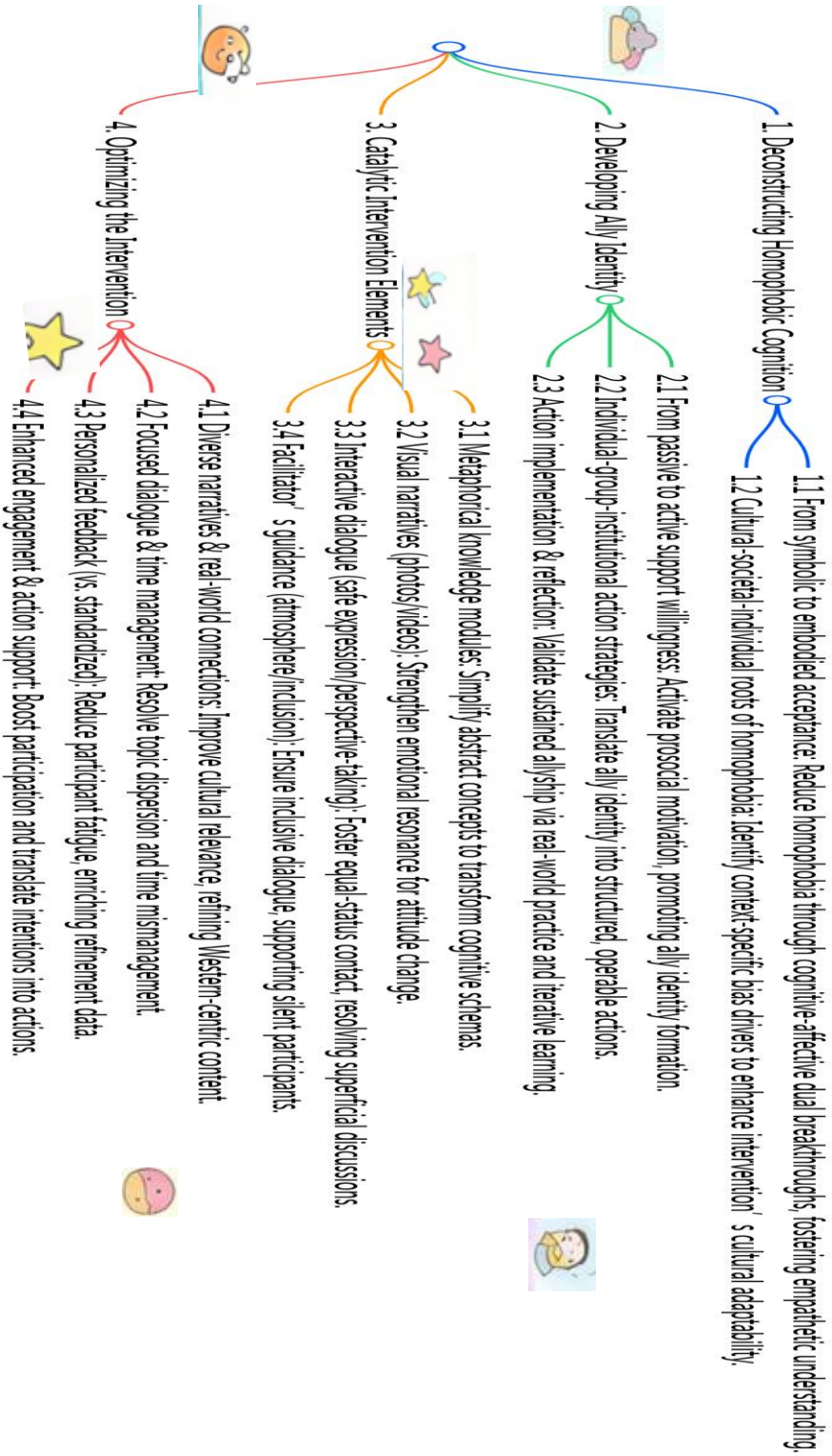

Figure 10 Structure Diagram of phase 3 Qualitative analysis

Summary of the Current Research Findings

The researcher summarized all the current research findings, and the results supported the hypotheses in Table 22 below.

Table 22 Summary of Hypotheses and Conclusions Across Research Phases

Phase	Research Objective	Hypothesis	Key Conclusions
Phase 1	Validate the psychometric properties of the culturally adapted Homophobia Scale (HS) and Ally Identity Measure (AIM) for use in Southwest China.	H1: The Homophobia Scale and Ally Identity Measure are expected to demonstrate acceptable internal consistency reliability and acceptable model fit in confirmatory factor analysis among university students in Southwest China.	HS (α=0.933) and AIM (α=0.965) demonstrate strong reliability; CFA fit indices meet standards (CFI $\geqslant$0.916, RMSEA $\leqslant$0.070, SRMR $\leqslant$0.062). Both scales are suitable for assessing homophobia and ally identity in collectivist cultural settings, fully supporting the hypothesis.
Phase 2	Assess the viability and acceptability of the intergroup dialogue learning program through a pilot study.	H2: The pilot intergroup dialogue learning program lead to a decrease in participants' homophobia scores (on the HS) and an increase in their ally identity scores (on the AIM) from pretest to post-test.	The program is viable and acceptable (n=12). HS scores drop significantly from 76.25 to 32.25 (p<0.001) and AIM scores rise sharply from 43.08 to 78.33 (p<0.001), with Cohen's d values of 3.02 and 4.94 respectively. These results confirm the potential of dialogue-based interventions and fully support the hypothesis.
Phase 3	Evaluate the effectiveness of the tailored intergroup dialogue learning program compared to a general method in reducing homophobia and enhancing ally identity.	H3: The tailored intergroup dialogue learning program resulted in greater decreases in HS scores and greater increases in AIM scores among its participants relative to the control group following the program implementation. These group differences are expected to persist at follow-up.	The tailored program (n=30) outperforms the control group (n=15). HS scores decrease from 55.37 to 32.63 (partial η^2=0.52) versus the control group's increase from 50.73 to 55.00; AIM scores rise steadily from 57.47 to 83.43 (partial η^2=0.70) versus the control group's slight gain from 60.07 to 64.87 (p<0.001 for both). Mechanisms include cognitive deconstruction and emotional empathy, fully supporting both sub-hypotheses.

CHAPTER 5
DISCUSSION AND CONCLUSION

This study implemented a three-phase Research and Development (R&D) methodology to design, pilot, and evaluate a tailored intergroup dialogue learning program for university students in Southwest China, effectively reducing homophobia and promoting ally identity. Phase 1 validated the psychometric properties of the culturally adapted Homophobia Scale (HS) and Ally Identity Measure (AIM), establishing their reliability and structural validity within the local context. Phase 2, a mixed-methods pilot study, confirmed the program's viability, with qualitative data illuminating mechanisms of attitudinal change, including cognitive restructuring and emotional engagement. Phase 3, employing a sequential explanatory mixed-methods design, demonstrated the tailored program's superior efficacy compared to a general approach, corroborated by qualitative insights into prejudice deconstruction, ally identity formation, and strategies for intervention refinement. Collectively, these findings affirm the program's robust impact in fostering inclusive attitudes, offering a culturally responsive model for addressing prejudice in Chinese higher education settings.

Discussion of Results from Phase 1

Phase 1 of this study validated the psychometric properties of the culturally adapted Homophobia Scale (HS) and Ally Identity Measure (AIM) for use among university students in Southwest China, confirming their suitability for evaluating the intergroup dialogue learning program. The successful adaptation of these scales, originally developed in Western contexts, underscores their robustness in a collectivist cultural setting. The HS, a 25-item instrument assessing Behavior/Negative Affect, Affect/Behavioral Aggression, and Cognitive Negation (Wright et al., 1999), demonstrated high internal consistency, comparable to Western validations reporting alpha values in the 0.80–0.90 range (Grey et al., 2013; Wright et al., 1999). Similarly, the 19-item AIM, measuring Knowledge and Skills, Openness and Support, and Oppression Awareness (Jones et al., 2014), exhibited strong reliability, surpassing U.S.-based alpha

values of 0.76–0.88 (Jones et al., 2014). These results indicate that the translation and cultural adaptation processes, including forward-back translation and expert review, effectively preserved the scales' conceptual integrity while ensuring relevance to the Chinese context, where familial and social harmony norms influence attitudes toward sexual minorities (Chan & Huang, 2022).

The three-factor structures of both scales were supported through confirmatory factor analysis, with model optimizations accounting for cultural nuances, a practice consistent with cross-cultural psychometric studies (Cheung & Rensvold, 2002). The robust factor loadings and convergent validity further corroborated the scales' structural validity, aligning with prior adaptations of homophobia-related measures in China. For instance, the Attitudes Toward Lesbians and Gay Men Scale (ATLG) achieved high reliability (α=0.92) and good model fit in Chinese samples (Yu et al., 2011), suggesting that Western scales can be effectively tailored to address culturally specific stigma, such as Confucian-driven expectations of filial piety (Chan & Lam, 2023a). Internationally, similar adaptations, such as the Spanish version of the gay and lesbian Attitudes Scale (α=0.85, CFI=0.93), have shown comparable success in non-Western settings (Rodríguez-Castro et al., 2013), reinforcing the transferability of such tools to regions like Southwest China, where conservative values may heighten prejudice.

In comparison, the confirmatory factor analysis (CFA) results for translated versions of the Homophobia Scale (HS) and Ally Identity Measure (AIM) across different countries have demonstrated consistent structural validity, with variations in methodological detail and cultural adaptations. For the HS, the Italian validation confirmed its three-factor structure (Behavior/Negative Affect, Affect/Behavioral Aggression, Cognitive Negation) with excellent model fit (CFI=0.95, RMSEA=0.05) (Ciocca et al., 2015). Similarly, the Indonesian adaptation, evaluated via Rasch analysis (comparable to CFA for assessing item fit), exhibited good item fit and high person separation reliability (> 0.80) (Putri, 2025), while the Colombian short version (HS-4) showed adequate performance with one factor accounting for 59.7% of variance and acceptable fit indices (RMSEA = 0.063, CFI = 0.998, TLI = 0.997) (Campo-Arias et al.,

2017), aligning with the original U.S. factor loadings (0.50–0.80) (Wright et al., 1999). In contrast, the AIM's Spanish adaptation in Spain replicated its three-factor structure (Knowledge and Skills, Openness and Support, Oppression Awareness) with satisfactory fit indices (López-Sáez et al., 2022), mirroring the U.S. original (Jones et al., 2014). However, unlike the HS, which has been validated across diverse cultural contexts (e.g., Italy, Indonesia, Colombia), the AIM's CFA evidence remains limited primarily to Western settings, underscoring the need for broader non-Western cross-cultural validations.

The participant demographics, primarily heterosexual and urban undergraduates, reflected the target population but highlighted potential constraints in generalizing findings to diverse groups, such as rural or ethnic minority students. Ethnic background might have been a potential confounding variable, as Southwest China's diverse ethnic groups (e.g., Yi, Tibetan, Tujia, Miao) held distinct cultural norms that could have shaped homophobic attitudes and ally identity development differently. However, the scales' consistent performance across these demographics supports their applicability. These findings align with international research, such as Espelage et al.'s (2015) validation of prejudice measures in diverse educational settings, which emphasized the importance of context-specific adaptations for reliable assessment. Overall, Phase 1's outcomes established psychometrically sound instruments, enabling precise evaluation of the intergroup dialogue learning program's impact in subsequent phases and contributing to the global literature on cross-cultural scale adaptation in applied psychology.

Discussion of Results from Phase 2 and Phase 3

The integrated findings from Phases 2 and 3 demonstrated the intergroup dialogue learning program's efficacy in reducing homophobia and fostering ally identity among university students in Southwest China, with Phase 3's refined intervention building upon the Phase 2 pilot to achieve deeper and more sustainable outcomes. The program's success stemmed from its comprehensive approach, addressing cognitive, emotional, and behavioral dimensions of prejudice, as evidenced by both quantitative

improvements and qualitative insights. In Phase 2, the pilot study revealed initial attitudinal shifts, with participants reporting reduced stereotypes through cultural explorations (e.g., unpacking media-driven narratives) and embodied interactions (e.g., scenario simulations), which fostered empathy and rational acceptance of sexual diversity. For instance, participants noted moving from viewing sexual minorities as "deviant" to recognizing their shared humanity, a shift attributed to tools like the "gender gingerbread man" metaphor and coming-out narratives. Phase 3 enhanced these effects by addressing pilot-identified limitations, such as superficial engagement and knowledge retention gaps, through targeted refinements like structured issue-focused dialogues and diverse feedback mechanisms (e.g., emotional doodling). This progression enabled more robust cognitive restructuring—participants reframed sexual orientation within a culturally nuanced lens—and sustained behavioral changes, evidenced by proactive ally actions like social media advocacy and institutional proposals for gender-neutral facilities, which were more systematic and impactful compared to Phase 2's preliminary efforts.

These outcomes were anchored in Intergroup Contact Theory (Allport, 1954; Pettigrew & Tropp, 2006) and Social Constructivism (Vygotsky, 1978), which provided a shared theoretical foundation across both phases.

First, alignment with Intergroup Contact Theory was clear in quantitative and qualitative results. The theory states that positive intergroup contact, under conditions of equal status, cooperative goals, and supportive context, reduces prejudice. In Phase 3, the experimental group's HS scores decreased significantly (from 55.37 to 32.63 at follow-up), while the control group's scores increased (from 50.73 to 55.00). This directly reflected the theory's core mechanism. The program's structured activities (e.g., "Fishbowl" discussions for equal status interaction, collaborative action planning for shared goals) created meaningful contact between heterosexual and gay/lesbian students. Qualitative data further supported this link: participants reported that "hearing gay classmates' personal stories" and "working together on inclusion projects" reduced their fear and stereotypes.

Second, results aligned with Social Constructivism, which argues that attitudes and identity are socially constructed through collaborative dialogue. This was evident in ally identity development. The experimental group's AIM scores rose steadily (from 57.47 to 83.43 at follow-up), while the control group showed minimal gains (from 60.07 to 64.87). Qualitative insights explained this shift: through reflective discussions, participants recognized that homophobic beliefs (e.g., "same-gender attraction violates filial piety") were shaped by social norms, not innate. The program's scaffolded activities (from identity exploration to action planning) guided participants to co-construct inclusive perspectives. This aligned with Vygotsky's "zone of proximal development," where social interaction deepened cognitive restructuring. For example, participants reported redefining allyship from "passive support" to "active advocacy."

Consistent with Phase 1's consideration, ethnic background might have influenced the study's results, as cultural differences across ethnic groups could have led to variations in the program's effectiveness in reducing homophobia and promoting ally identity. In Phase 2, these theories guided the exploratory pilot, emphasizing social interactions to challenge fixed prejudices. Phase 3 extended this base by integrating feedback-driven enhancements, aligning more closely with Vygotsky's emphasis on scaffolded learning to deepen internalization, thus making the intervention more effective in translating theoretical principles into practical, sustained ally behaviors.

These results resonated with comparable interventions in international educational contexts, where dialogue-based programs have similarly mitigated prejudice against sexual minorities. For example, Nagda et al. (2009) found that intergroup dialogues in U.S. universities reduced bias toward LGBTQ+ groups by fostering empathy, akin to the emotional pathways observed here. Likewise, Gurin et al. (2013) reported enhanced ally development in diverse student cohorts through structured contact, supporting the progression from pilot to refined implementation for greater impact. Internationally, (Boateng et al., 2018) demonstrated prejudice reduction in Ghanaian youth via culturally adapted dialogues, highlighting refinements like

localized narratives to address conservative norms, mirroring the upgrades from Phase 2 to Phase 3 in this study.

Limitations

While the results of this study were reliable, three key limitations merited consideration.

First, the sample was primarily Han Chinese from urban universities in Southwest China—limiting generalizability to other regions of China, ethnic minorities, and rural populations (Li et al., 2020). Southwest China was home to diverse ethnic groups (e.g., Yi, Tibetan, Tujia, Miao) with distinct cultural norms, such as traditional gender role expectations and communal values, which might have shaped their engagement with gay and lesbian issues differently. For instance, ethnic minority groups might have faced distinct cultural and social barriers when engaging with gay and lesbian issues, which could have affected the program's efficacy in different contexts (Sun et al., 2021). Additionally, the overall sample size was insufficient. This inadequacy may have led to insufficient statistical power, making it harder to detect subtle but meaningful effects of the intervention. It also means the findings require validation through a larger, more diverse sample to confirm their robustness.

Second, the study relied on self-report measures (i.e., the Homophobia Scale and the Ally Identity Measure), which might have introduced social desirability bias, especially in a collectivistic cultural context that emphasized conformity. To mitigate this bias, several measures were implemented: participants completed scales anonymously, were explicitly informed that "there are no right or wrong answers, and responses are only used for research purposes," and were assured of strict data confidentiality. Despite these efforts, social desirability bias might still have existed, potentially leading to an overestimation of positive attitude changes and exaggerating the observed effects of the intergroup dialogue learning program.

Third, the study lacked objective behavioral indicators to complement self-reported data. Self-reports might not have fully reflected participants' actual behaviors toward sexual minorities, as attitudinal changes reported on scales do not always

translate to consistent real-world actions. This gap limited the comprehensiveness of assessing the intervention's true impact beyond self-perceived attitude shifts.

Future Research Directions

To address the study's limitations, future research would have prioritized improving the intergroup dialogue learning program's generalizability, statistical robustness, and measurement rigor.

First, future research would have expanded the sample scope and size, while also extending the program to primary and secondary schools. For broader generalizability, it would have recruited participants from regions beyond Southwest China, including ethnic minority communities and rural areas. Ethnic differences in cultural norms (e.g., traditional gender roles, communal values) might have interfered with intervention outcomes, as diverse ethnic groups could have responded differently to the program. Thus, future studies would have controlled for "ethnicity" as a key variable to eliminate such confounding effects and ensure accurate interpretation of results. A larger sample would have enhanced statistical power, allowing for the detection of subtle intervention effects and validation of current findings. For ethnic minority groups, researchers would have adjusted intervention elements to address unique cultural barriers, such as traditional values or limited exposure to gay and lesbian issues (Sun et al., 2021). For primary and secondary school students, researchers would have adapted content to match their cognitive development levels: using picture books, interactive games, and age-appropriate videos instead of adult-oriented discussions. Key concepts (e.g., respect, inclusion) would have been framed through relatable scenarios (e.g., friendship, anti-bullying), and researchers would have collaborated with parents and teachers to navigate cultural and educational sensitivities.

Second, future research would have adopted specific techniques to mitigate social desirability bias. It would have integrated the Implicit Association Test (IAT) to measure implicit homophobia, complementing explicit data from the Homophobia Scale (HS) and Ally Identity Measure (AIM). The randomized response technique (RRT) would have also been used to reduce participants' reluctance to disclose true attitudes,

minimizing perceived social pressure. These steps would have built on the current study's measures (anonymous scale completion, guidance that there are no right or wrong answers, strict confidentiality).

Third, future research would have incorporated objective behavioral indicators. It would have observed participants' willingness to intervene in homophobic behavior on campus, tracked their participation in LGBTQ+ advocacy activities, documented their supportive interactions with sexual minority peers, and evaluated their completion of ally-focused tasks (e.g., creating inclusive campus resources). These indicators would have provided a more comprehensive assessment of the program's real-world impact.

Implications

1. Academic Implications

First, it was the first intergroup dialogue-based homophobia reduction intervention targeting college students in Southwest China (Glasgow et al., 2003), a region with high homophobia rates and limited inclusive initiatives. It also developed and validated the first Chinese versions of the Homophobia Scale (Cronbach's α=0.933) and Ally Identity Measure (Cronbach's α=0.965) via confirmatory factor analysis (CFA). These tools addressed the lack of reliable measurement instruments for gay and lesbian-related research in China, laying a foundation for future cross-cultural prejudice studies.

Second, the study enriched Intergroup Contact Theory (Allport, 1954) by demonstrating that structured, equal-status contact—integrated with culturally resonant elements like filial piety discussions and local coming-out narratives—effectively reduced prejudice beyond Western individualistic settings. It linked the theory's core conditions (equal status, cooperative goals) to tangible dialogue activities, showing how controlled interaction dismantled stereotypes rooted in Confucian norms. Additionally, it advanced Social Constructivism (Vygotsky, 1978) by illustrating that homophobia and ally identity were socially constructed: through collaborative dialogue, participants recognized that biased views (e.g., linking same-gender attraction to "filial impiety")

were shaped by social norms, not innate, enabling cognitive restructuring and attitude change aligned with Vygotsky's emphasis on social interaction-driven learning.

Third, the mixed-methods design (quantitative scale data + qualitative focus group insights) captured both measurable outcomes (reduced HS scores, increased AIM scores) and underlying change mechanisms (emotional resonance from shared stories, cognitive decentering through perspective-taking). This offered a replicable template for evaluating dialogue-based interventions in non-Western educational contexts, aligning with international best practices (Nagda et al., 2009).

Notably, one derivative study from this research "Development and Psychometric Testing of the Chinese Version of the Homophobia Scale Among University Students" was published in the International Journal of Adolescence and Youth (2025, https://doi.org/10.1080/02673843.2025.2573642). This further disseminated its academic impact.

2.Practical Implications

First, Against the backdrop of partial campus efforts (e.g., gay and lesbian mental health lectures) but no national inclusive curricula, the tailored 5-session program (Pillai's Trace=0.767, $p<0.001$) served as a ready-to-use supplement for mental health or intercultural communication curricula. The complete program package: including session flow guides, activity materials, and scale administration protocols, is available via the research team.

Second, the core structure remained consistent, with targeted regional adjustments recommended: for northern universities, focus on urban-rural differences in gay and lesbian acceptance; for ethnic minority-serving institutions, integrate minority cultural perspectives on gender and sexuality. This flexibility ensured relevance across diverse Chinese educational and community contexts.

Third, the study secured practical partnerships to translate research into action. Chongqing University of Technology's School of Languages and Communication planned to integrate the Chinese HS into its intercultural communication curriculum in 2026. It also intended to host a homophobia reduction training workshop led by the

researcher. Additionally, Chongqing Jiangbei District Four Seasons Spring Social Work Service Center collaborated to promote the program across 10 universities in Chongqing, targeting over 500 students annually. These partnerships demonstrated the program's real-world applicability and potential to drive systemic change in campus inclusivity.

Fourth, Qualitative findings identified student-led strategies (rainbow badges, campus gay and lesbian resource maps, gender-neutral restroom proposals) that universities and community organizations can support via micro-grants, policy suggestion channels, and training on the validated HS/AIM scales for pre-post intervention assessment. These strategies directly translated the theoretical insights of the two frameworks into practical, context-specific actions.

Conclusion

This R&D study successfully addressed gaps in Chinese gay and lesbian intervention research by validating culturally adapted scales and developing a tailored intergroup dialogue learning program for college students in Southwest China. Phase 1 confirmed the Chinese versions of the Homophobia Scale (HS, Cronbach's α=0.933) and Ally Identity Measure (AIM, Cronbach's α=0.965) as reliable and valid tools, filling the need for context-appropriate assessment instruments. Phase 2program development and pilot testing (n=12) demonstrated the program's validity, with significant pre-post reductions in homophobia (HS: 76.25 to 32.25, p<0.001) and increases in ally identity (AIM: 43.08 to 78.33, p<0.001). Phase 3 (n=45) validated the program's effectiveness: the intervention group showed sustained HS score decreases (55.37 to 32.63) and AIM score increases (57.47 to 83.43) compared to the control group (p<0.001), supported by qualitative evidence of cognitive restructuring and behavioral allyship.

Anchored in Intergroup Contact Theory and Social Constructivism, the program's success highlighted that structured, culturally tailored dialogue reduces prejudice by fostering equal-status interaction and collaborative meaning-making. Practical partnerships with academic institutions and social work NGOs further

confirmed the program's real-world applicability. Overall, this study provided a culturally adaptive model for reducing homophobia and enhancing ally identity in Chinese higher education, offering both validated measurement tools and an actionable intervention that aligns with regional cultural norms. The findings underscored the value of context-sensitive, theory-driven interventions to promote inclusivity for gay and lesbian individuals in collectivist settings.

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APPENDIX

Section A: Research Instruments

Appendix A1: Homophobia Scale (HS)

Homophobia Scale

同性恋恐惧量表

This questionnaire is designed to measure your thoughts, feelings, and behaviors with regards to homosexuality. It is not a test, so there are no right or wrong answers. Answer each item by circling the number after each question as follows:

1 Strongly agree

2 Agree

3 Neither agree nor disagree

4 Disagree

5 Strongly disagree

本问卷旨在测量您对同性恋的看法、感受和行为。这不是个测验，所以没有正确或错误的答案。圈出每题后对应的数字进行回答，数字代表的意思如下所示：

1 非常同意

2 同意

3 既不同意也不反对

4 不同意

5 非常不同意

Number	Content	Score				
1	Gay people make me nervous. 同性恋者让我感到紧张。	1	2	3	4	5
2	Gay people deserve what they get. 同性恋者罪有应得。	1	2	3	4	5
.....	.....					
25	I have rocky relationships with people that I suspect are gay. 我和那些我认为可能是同性恋的人关系不稳定。	1	2	3	4	5

Scoring information for the Homophobia Scale (Wright, Adams, & Bernat)

1.Reverse score the following items: 1, 2, 4, 5, 6, 9, 12, 13, 14, 15, 17, 19, 21, 23, 24, 25 (to reverse score the items 1=5, 2=4, 3=3, 4=2, 5=1).

2.To calculate the total scale score, add items 1-25, then subtract 25 from the total scale score. The range of scores should then be between 0-100, with a score of 0 being the least homophobic and 100 being the most homophobic.

3.To calculate the subscale scores: (after items have been reverse scored)

Factor 1 (Behavior/Negative Affect): add items 1, 2, 4, 5, 6, 7, 9, 10, 11, 22, then subtract 10. Scores should range between 0-40.

Factor 2 (Affect/Behavioral Aggression): add items 12, 13, 14, 15, 17, 19, 21, 23, 24, 25, then subtract 10. Scores should range between 0-40.

Factor 3 (Cognitive Negativism): add items 3, 8, 16, 18, 20, then subtract 5. Scores should range between 0-20.

同性恋恐惧量表（Wright, Adams & Bernat）的计分信息：

反向计分以下题目：1、2、4、5、6、9、12、13、14、15、17、19、21、23、24、25 （反向计分方法为：1=5，2=4，3=3，4=2，5=1）。

计算总分：将所有 25 道题的分数相加，然后减去 25。总分范围为 0-100，0 分表示最不恐同，100 分表示最恐同。

计算子量表得分（需要在反向计分后进行）：

因子 1（行为/负面影响）：将第 1、2、4、5、6、7、9、10、11、22 题的分数相加，然后减去 10。分维度得分范围为 0-40。

因子 2（情感/行为攻击）：将第 12、13、14、15、17、19、21、23、24、25 题的分数相加，然后减去 10。分维度得分范围为 0-40。

因子 3（认知否定）：将第 3、8、16、18、20 题的分数相加，然后减去 5。分维度得分范围为 0-20。

Appendix A2: Ally Identity Measure (AIM)

Ally Identity Measure

盟友身份测量

DIRECTIONS: Please take a moment to read each question, and indicate the appropriate response that captures the degree to which you agree with the statement. Please answer each item as it pertains to you right now. Please try to respond to every item. Throughout the survey, the phrase Sexual Minority is meant to be all encompassing of all sexual minority groups and individuals (for example: Gay, Lesbian, Bisexual, Transgender, Questioning, and Queer people).

指导：请花一点时间阅读每个问题，并圈出与您认同程度相符的数字。请尽量回答每个问题。在整个调查中，"性少数群体"这个短语是涵盖所有性少数群体和个人（例如：男同性恋、女同性恋、双性恋、跨性别、质疑自己性取向者和酷儿）。

Number	Content	Score				
1	I keep myself informed through reading books and other media about various issues faced by sexual minority groups, in order to increase my awareness of their experiences. 我通过阅读书籍和其他媒体，了解性少数群体面临的各种问题，以增加我对他们经历的认识。	1	2	3	4	5
2	I know about resources (for example: books, websites, support groups, etc.) for sexual minority people in my area. 我知道我所在地区性少数群体的资源（例如：书籍、网站、支持小组等）。	1	2	3	4	5
.....	.....	1	2	3	4	5
19	I am comfortable with knowing that, in being an ally to sexual minority individuals, people may assume I am a sexual minority person. 我对作为性少数群体个体的盟友感到舒适，甚至人们可能会认为我是性少数群体的一员。	1	2	3	4	5

Response Option: All questions are on a 5 point Likert scale, ranging from Strongly Disagree, Disagree, Neither Disagree nor Agree, Agree and Strongly Agree.

Scoring: Total scores range from 19 to 95. Higher scores indicate a higher ally identity levels.

Subscales: Knowledge and Skills: Add together items 1, 2, 3, 7, 11, 12, 14, 15 Openness and Support: Add together items 4, 6, 8, 9, 13, 16, 19 Oppression Awareness: Add together items 5, 10, 17, 18

数字代表的意思如下所示：

1 强烈反对

2 反对

3 既不同意也不反对

4 同意

5 强烈同意

回答选项：所有问题都采用 5 分制的李克特量表，范围从 “1 强烈反对”、“2 反对”、“3 既不同意也不反对”、“4 同意”到“5 强烈同意”。

评分：总分范围从 19 到 95。分数越高，表明盟友身份的水平越高。

包含三个子量表:知识和技能：将项目 1、2、3、7、11、12、14、15 相加。开放性和支持：将项目 4、6、8、9、13、16、19 相加。压迫意识：将项目 5、10、17、18 相加。

Section B: Ethical and Administrative Documents

Appendix B1: IRB Approval Letter

Ethical Review Opinion (Affirmative)

Project No.	Opinion on (2024)-0301		
Program title	Challenging Prejudice: The Influence of Tailored Intergroup Dialogue Learning Program on Homophobia and Ally Identity for College Students in Southwest China		
Dosage form (not applicable to medical devices)	Not applicable	**Specification**	Not applicable
Registration Category	Not applicable	**NMPA license number and date**	Not applicable
Department	Foreign Languages college, Chongqing University of Technology	**Researcher's Name**	Zou Shuilu
Applying No.	Accepted (2024)-0301		
Sponsor Information	Institution: Contact person: Tel. & E-mail:	Not applicable	
CRO Information	Institution: Contact person: Tel. & E-mail:	Not applicable	
Review Category	☑Initial Review □Amendment Review □Annual/Periodic Follow-up Review □Safety Information Review □Deviation from Protocol Review □Termination/Suspension of Trial Review □Finalization Review □Post-Initial Review Re-evaluation □Post-Follow-up Review Re-evaluation		
Review Pattern	☑ Simple Meeting Review □ Meeting Review: Meeting Number: Meeting Location: Meeting Time:		
Official documents used to guide the review process			
Research Protocol: Version No. V1.0 June 2024			

Focus Group Interview Protocol: Version No. V1.0 June 2024 **Confidentiality Agreement**: Version No. V1.0 June 2024 **Demographic Information Collection Protocol**: Version No. V1.0 June 2024 **Informed Consent Form**: Version No. V1.0 June 2024	
Review Meeting Voting Results	
Agree	**Agree with Necessary Modifications** / **Disagree** / **Terminate/Suspend Already Approved Research**
3 votes	0 / 0 / 0
Review Comments	
Based on the ethical principles outlined in the WAV "Declaration of Helsinki" and the CIOMS "International Ethical Guidelines for Biomedical Research Involving Human Subjects", as well as the "Measures for Ethical Review of Biomedical Research Involving Humans (2016)" by the Ministry of Health, the "Good Clinical Practice (GCP) Guidelines for Drug Clinical Trials (2020)" and "Good Clinical Practice Guidelines for Medical Device Clinical Trials (2022)" by the NMPA, the "Guiding Principles for Ethical Review of Drug Clinical Trials (2010)", and the "Management Regulations for Ethical Review of Traditional Chinese Medicine Clinical Research (2010)" by the State Administration of Traditional Chinese Medicine, this study has been reviewed and approved by our Ethics Committee. Please conduct the clinical research in accordance with GCP principles and the protocol approved by the Ethics Committee, protecting the health and rights of the subjects. During the course of the study, please submit amendment review applications, progress reports, safety reports, protocol deviation reports, termination or suspension reports, and study completion reports as required. In the event of any deviations or modifications to the study protocol necessary to eliminate imminent hazards to subjects, any increases in subject risk or significant changes that may affect the implementation of the clinical study, all suspected and unexpected serious adverse reactions, or any new information that may adversely affect the safety of subjects or the implementation of the clinical study, please promptly report to our Ethics Committee. Contact Address: No. 1, Gonglian 1st Village, Lijiatuo, Banan District, Chongqing Contact Person: Chen Xinhao Contact Phone: 023-62861152 E-mail: hover163ok@163.com	
Compliance Statement	The composition and operation of this Ethics Committee comply with relevant laws and regulations.
Annual/Periodic Follow-up Review Frequency	6 months. ☐ Not applicable (termination/suspension of trial reviews and re-reviews, conclusion of project reviews and re-examinations)
Expiration Date	From June 1, 2024, to December 30, 2024. ☐ (Not Applicable) for Termination/Suspension of Trial Reviews and Re-reviews, Conclusion of Project Reviews and Re-reviews.
Validity Period of Approval for Clinical Trial	6 months. ☐ Not Applicable (Except for Initial Review and Its Re-review, as well as Annual/Periodic Follow-up Reviews and Their Re-reviews for Extending the Validity Period of Approval Documents, All Other Follow-up Reviews and Their Re-reviews Are Not Applicable).
Expiration Date	From June 1, 2024, to December 30, 2024.

	☐ Not Applicable (Except for Initial Review and Its Re-review, and Annual/Periodic Follow-up Reviews for Extending Approval Validity, All Other Follow-up Reviews and Their Re-reviews Are Not Applicable).
Chef of Committee Sign: **Date:** 2024.6.1	**Ethic Committee Seal:** 重庆市第七人民医院 医学伦理委员会 **Date:** 2024.6.1

Ethical Review Opinion (Affirmative)

Project No.	Opinion on (2024)-0301-01		
Program title	Challenging Prejudice: The Influence of Tailored Intergroup Dialogue Learning Program on Homophobia and Ally Identity for College Students in Southwest China		
Dosage form (not applicable to medical devices)	Not applicable	**Specification**	Not applicable
Registration Category	Not applicable	**NMPA license number and date**	Not applicable
Department	Foreign Languages college, Chongqing University of Technology	**Researcher's Name**	Zou Shushu
Applying No.	Accepted (2024)-0301-01		
Sponsor Information	Institution: Contact person: Tel. & E-mail:	Not applicable	
CRO Information	Institution: Contact person: Tel. & E-mail:	Not applicable	
Review Category	☑Initial Review □Amendment Review □Annual/Periodic Follow-up Review □Safety Information Review □Deviation from Protocol Review □Termination/Suspension of Trial Review □Finalization Review □Post-Initial Review Re-evaluation □Post-Follow-up Review Re-evaluation		
Review Pattern	☑ Simple Meeting Review □ Meeting Review: Meeting Number: Meeting Location: Meeting Time:		
Official documents used to guide the review process			
Research Protocol: Version No. V1.0 June 2024			

Focus Group Interview Protocol: Version No. V1.0 June 2024
Confidentiality Agreement: Version No. V1.0 June 2024
Demographic Information Collection Protocol: Version No. V1.0 June 2024
Informed Consent Form: Version No. V1.0 June 2024
Application for project extension Version No. V1.0 Dec 2024

Review Meeting Voting Results

Agree	Agree with Necessary Modifications	Disagree	Terminate/Suspend Already Approved Research
2 votes	0	0	0

Review Comments

Based on the ethical principles outlined in the WAV "Declaration of Helsinki" and the CIOMS "International Ethical Guidelines for Biomedical Research Involving Human Subjects", as well as the "Measures for Ethical Review of Biomedical Research Involving Humans (2016)" by the Ministry of Health, the "Good Clinical Practice (GCP) Guidelines for Drug Clinical Trials (2020)" and "Good Clinical Practice Guidelines for Medical Device Clinical Trials (2022)" by the NMPA, the "Guiding Principles for Ethical Review of Drug Clinical Trials (2010)", and the "Management Regulations for Ethical Review of Traditional Chinese Medicine Clinical Research (2010)" by the State Administration of Traditional Chinese Medicine, this study has been reviewed and approved by our Ethics Committee.

Please conduct the clinical research in accordance with GCP principles and the protocol approved by the Ethics Committee, protecting the health and rights of the subjects.

During the course of the study, please submit amendment review applications, progress reports, safety reports, protocol deviation reports, termination or suspension reports, and study completion reports as required.

In the event of any deviations or modifications to the study protocol necessary to eliminate imminent hazards to subjects, any increases in subject risk or significant changes that may affect the implementation of the clinical study, all suspected and unexpected serious adverse reactions, or any new information that may adversely affect the safety of subjects or the implementation of the clinical study, please promptly report to our Ethics Committee.

Contact Address: No. 1, Gonglian 1st Village, Lijiatuo, Banan District, Chongqing
Contact Person: Chen Xinhao
Contact Phone: 023-62861152
E-mail: hover163ok@163.com

Compliance Statement	The composition and operation of this Ethics Committee comply with relevant laws and regulations.
Annual/Periodic Follow-up Review Frequency	12 months. ☐ Not applicable (termination/suspension of trial reviews and re-reviews, conclusion of project reviews and re-examinations)
Expiration Date	From December 10, 2024, to December 9, 2025. ☐ (Not Applicable) for Termination/Suspension of Trial Reviews and Re-reviews, Conclusion of Project Reviews and Re-reviews.
Validity Period of Approval for Clinical Trial	12 months. ☐ Not Applicable (Except for Initial Review and Its Re-review, as well as Annual/Periodic Follow-up Reviews and Their Re-reviews for Extending the Validity Period of Approval Documents, All Other Follow-up Reviews and Their Re-reviews Are Not Applicable).

AF-IRB-RP-015-01 Ethical Review Opinion (Affirmative)

Expiration Date	From December 10, 2024, to December 9, 2025. ☐ Not Applicable (Except for Initial Review and Its Re-review, and Annual/Periodic Follow-up Reviews for Extending Approval Validity, All Other Follow-up Reviews and Their Re-reviews Are Not Applicable).
Chef of Committee Sign: **Date:**Dec.9，2024	**Ethic Committee Seal:** 重庆市第七人民医院 医学伦理委员会 **Date:**Dec.9，2024

Appendix B2: Recruitment Materials

Section C: Intervention Protocols

Appendix C1: Program Development and Pilot Testing Intervention Manual (Phase 2)

Session Number	Pilot-Test Intervention
session 1: Group Beginnings: Forming and Building Relationships	1. Explain the Informed Consent Form and Confidentiality Agreement for participants. Then let all participants sign those forms. Establish the group's rules and boundaries, and ensure participants feel safe when sharing their thoughts and perspectives. Emphasize the importance of confidentiality, respect, and non-judgment within the group. (20 minutes) 2. Each participant introduces themselves (name/nickname, major, why participating, and expectations for the program). (15 minutes) 3. Participants complete the pretest of the HS and AIM scales. (5 minutes) 4. Mini-lecture: Differences between dialogue and debate; the Gender Gingerbread Man. (20 minutes) 5. Q&A, sharing, and dialogue about Mini-lecture. (25 minutes) 6. Summarize this session. Remember arrangements and stuff needed for the next session. (5 minutes)
Session 2 Exploring Differences and Commonalities of Experience	1. Emotional Mapping: Each participant shares their experiences from the end of the last session to the present, as well as their current feelings. (20 minutes) .....
Session3 Exploring and Dialoguing About Hot Topics	.....
Session4 Action Planning and Alliance Building	.....
Session5 Feedback on the development of the group was received after 1 week	.....Conclusion and Evaluation. (20 minutes)

Appendix C2: Tailored Intervention Manual (Phase 3)

Session Number	Tailored Intervention
session 1: Group Beginnings: Forming and Building Relationships	1. Explain the Informed Consent Form and Confidentiality Agreement for participants. Then let all participants sign those forms. Establish the group's rules and boundaries, and ensure participants feel safe when sharing their thoughts and perspectives. Emphasize the importance of confidentiality, respect, and non-judgment within the group. (20 minutes) 2. Each participant introduces themselves (name/nickname, major, why participating, and expectations for the program). (15 minutes) 3. Participants complete the pretest of the HS and AIM scales. (5 minutes) 4. Mini-lecture: Differences between dialogue and debate; the Gender Gingerbread Man; misconceptions and truths about sexual orientation and gender identity. (20 minutes) 5. Q&A, sharing, and dialogue about Mini-lecture. (25 minutes) 6. Summarize this session. Remember arrangements and stuff needed for the next session. (5 minutes)
Session 2 Exploring Differences and Commonalities of Experience	.....
Session3 Exploring and Dialoguing About Hot Topics	.....
Session4 Action Planning and Alliance Building	.....
Session5 Feedback on the development of the group was received after 1 week	.....Conclusion and Evaluation. (10 minutes)

Section D: Expert Reviews and Letters

Appendix D1: Expert Review Comments on Intervention Protocol

HESI. 8718/1347

Graduate School
Srinakharinwirot University
114 Sukhumvit 23, Bangkok 10110

23 September 2024

Topic: Invitation to be an Expert

To: Professor Dr.Zhao Yufang

Ms.Shushu Zou is a Doctoral degree student, majoring in Applied Psychology of Education at Srinakharinwirot University. She is working on her dissertation, titled "Challenging Prejudice: the Influence of Tailored Intergroup Dialogue Learning Program on Homophobia and Ally Identity for College Students in Southwest China", with Associate Professor Dr.Nanchatsan Sakunpong as her advisor

We would like to invite you to be an expert for Ms.Shushu Zou's research and to support her, as you are a specialist in the field of psychology."

Best regards,

(Associate Professor Dr.Chatchai Ekpanyaskul, MD)

Dean of the Graduate School

HESI. 8718/1347

Graduate School
Srinakharinwirot University
114 Sukhumvit 23, Bangkok 10110

23 September 2024

Topic: Invitation to be an Expert

To: Professor Dr.Zheng Lijun

Ms.Shushu Zou is a Doctoral degree student, majoring in Applied Psychology of Education at Srinakharinwirot University. She is working on her dissertation, titled "Challenging Prejudice: the Influence of Tailored Intergroup Dialogue Learning Program on Homophobia and Ally Identity for College Students in Southwest China", with Associate Professor Dr.Nanchatsan Sakunpong as her advisor.

We would like to invite you to be an expert for Ms.Shushu Zou's research and to support her, as you are a specialist in the field of psychology."

Best regards,

C Ekpanyaskul.

(Associate Professor Dr.Chatchai Ekpanyaskul, MD)

Dean of the Graduate School

HESI. 8718/1347

Graduate School
Srinakharinwirot University
114 Sukhumvit 23, Bangkok 10110

23 September 2024

Topic: Invitation to be an Expert

To: Dr.Han Yan

Ms.Shushu Zou is a Doctoral degree student, majoring in Applied Psychology of Education at Srinakharinwirot University. She is working on her dissertation, titled "Challenging Prejudice: the Influence of Tailored Intergroup Dialogue Learning Program on Homophobia and Ally Identity for College Students in Southwest China", with Associate Professor Dr.Nanchatsan Sakunpong as her advisor.

We would like to invite you to be an expert for Ms.Shushu Zou's research and to support her, as you are a specialist in the field of psychology."

Best regards,

C Ekpanyaskul.

(Associate Professor Dr.Chatchai Ekpanyaskul, MD)

Dean of the Graduate School

HESI. 8718/1347

Graduate School
Srinakharinwirot University
114 Sukhumvit 23, Bangkok 10110

23 September 2024

Topic: Invitation to be an Expert

To: Dr.Wu Zhenzhen

Ms.Shushu Zou is a Doctoral degree student, majoring in Applied Psychology of Education at Srinakharinwirot University. She is working on her dissertation, titled "Challenging Prejudice: the Influence of Tailored Intergroup Dialogue Learning Program on Homophobia and Ally Identity for College Students in Southwest China", with Associate Professor Dr.Nanchatsan Sakunpong as her advisor.

We would like to invite you to be an expert for Ms.Shushu Zou's research and to support her, as you are a specialist in the field of psychology."

Best regards,

(Associate Professor Dr.Chatchai Ekpanyaskul, MD)

Dean of the Graduate School

HESI. 8718/1347

Graduate School
Srinakharinwirot University
114 Sukhumvit 23, Bangkok 10110

23 September 2024

Topic: Invitation to be an Expert

To: Dr.Wang Yujuan

Ms.Shushu Zou is a Doctoral degree student, majoring in Applied Psychology of Education in at Srinakharinwirot University. She is working on her dissertation, titled "Challenging Prejudice: the Influence of Tailored Intergroup Dialogue Learning Program on Homophobia and Ally Identity for College Students in Southwest China", with Associate Professor Dr.Nanchatsan Sakunpong as her advisor.

We would like to invite you to be an expert for Ms.Shushu Zou's research and to support her, as you are a specialist in the field of psychology."

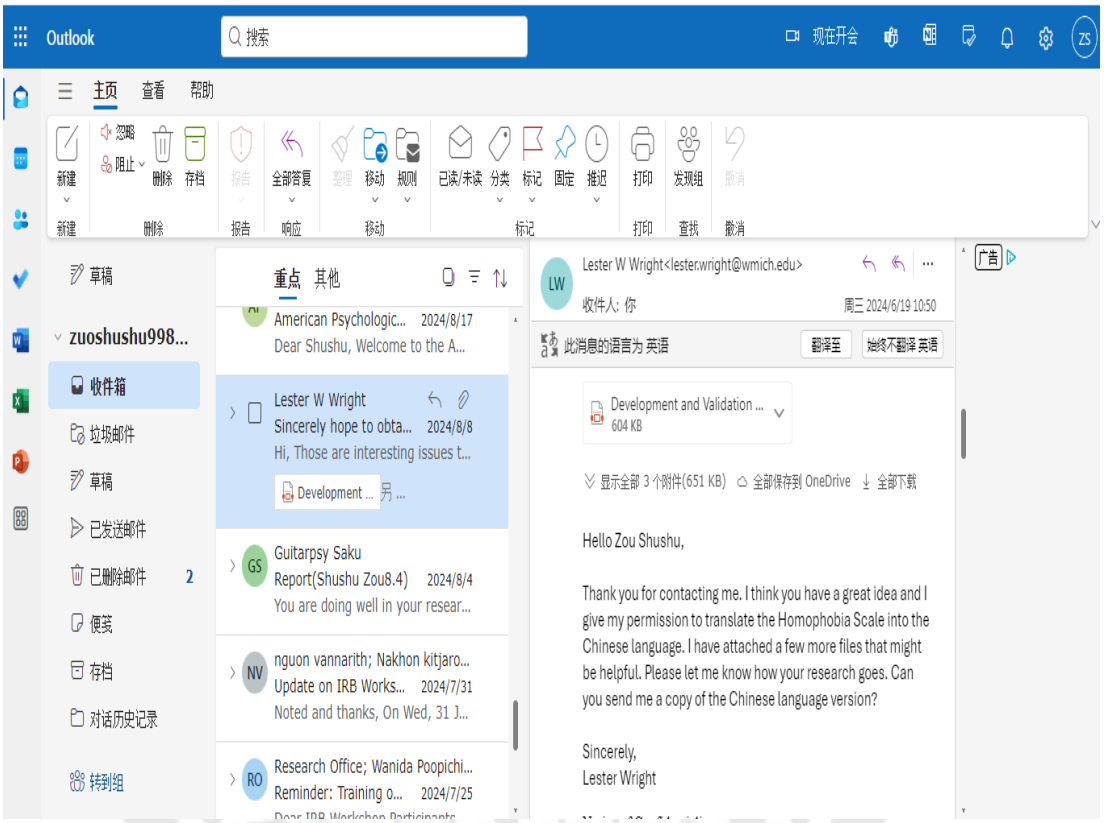
Best regards,

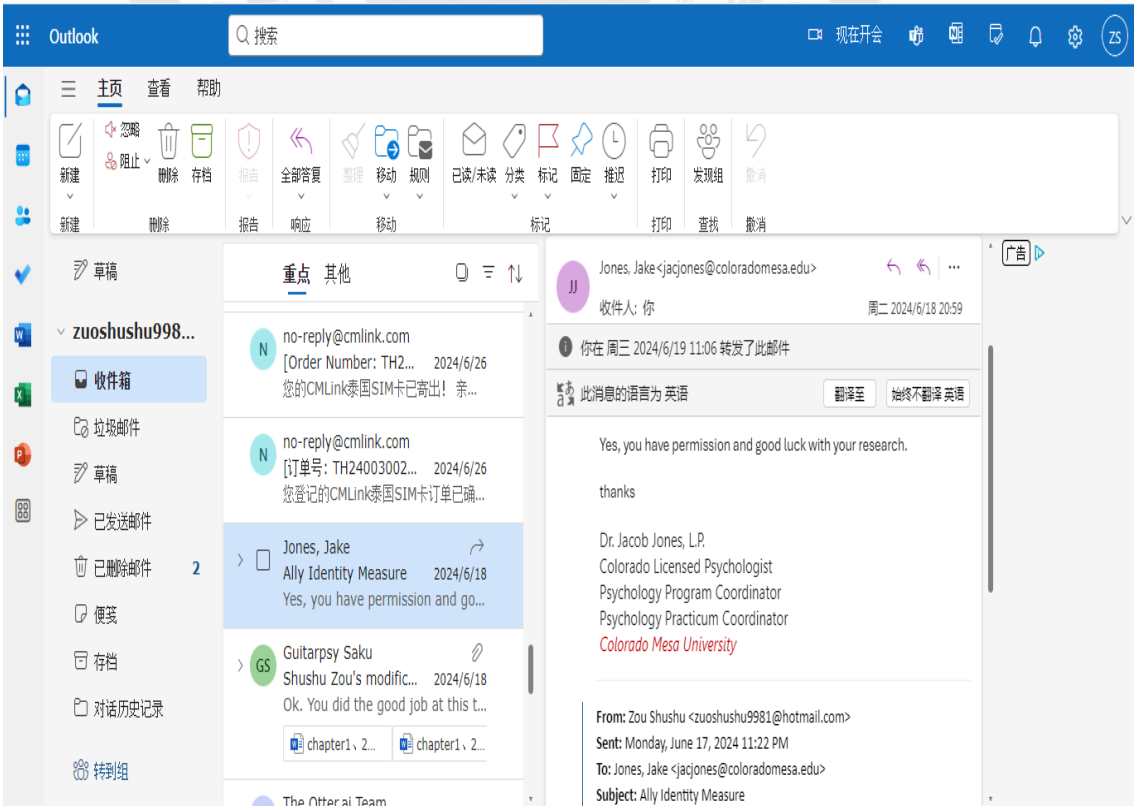
C Ekpanyaskul.

(Associate Professor Dr.Chatchai Ekpanyaskul, MD)

Dean of the Graduate School

Appendix D2: Scale Authorization Letter





Appendix D3: Letter to organization

尊敬的负责人：

Dear Head of the Institution:

您好！Hello!

我是 Shushu Zou，专注于性少数群体心理健康干预研究，尤其关注通过群体互动改善校园对同性恋群体的态度。基于西南地区高校的文化背景及贵校心理健康工作的实践需求，现结合研究成果，向贵中心介绍群体间对话学习项目(Intergroup Dialogue Learning Program)的核心内容与实施要点，旨在帮助专兼职心理咨询师、辅导员和大学生心理委员掌握该方法，以减少大学生同性恋恐惧、培育盟友身份。

I'm Shushu Zou, specializing in mental health intervention research for gays and lesbians, with a particular focus on improving campus attitudes towards gay and lesbian community through group interaction. Based on the cultural background of universities in the Southwest China and the practical needs of your university's mental health work, combined with the research results, we now introduce the core content and implementation key points of the "Intergroup Dialogue Learning Program" to your center. It aims to help full-time and part-time psychological consultants, counselors and college student psychological committee members master this method to reduce college students' Homophobia and cultivate ally identity.

一、项目核心价值与理论支撑

1. Core Values and Theoretical Support of the Project

本项目通过结构化对话促进不同性取向群体的深度互动，最终实现：减少大学生对同性恋群体的偏见（认知、情感、行为层面） 及 提升其支持性少数群体的 “盟友身份”(Jones et al., 2014)。其理论基础源自：

This program promotes in-depth interaction among groups with different gays and lesbians through structured dialogue, ultimately achieving reducing college students' prejudice against gay and lesbian community (at the cognitive, emotional, and behavioral levels) and enhancing their "ally status" in supporting gays and lesbians (Jones et al., 2014). Its theoretical basis stems from:

1.社会接触理论（Allport，1954）

1. Social Contact Theory (Allport, 1954)

强调 “平等地位、合作目标、权威支持” 的群体接触可显著降低偏见。项目通过组建异性恋和同性恋混合小组，创造安全互动场景，打破 “内群体 - 外群体” 的心理隔阂。

Group contact that emphasizes "equal status, cooperative goals, and authoritative support" can significantly reduce prejudice. The program breaks down the psychological barrier of "ingroup - outgroup" by forming mixed heterosexual and GL groups and creating safe interactive scenarios.

2.社会建构主义理论(Vygotsky，1978)

2. Social constructivism Theory (Vygotsky, 1978)

认为对性取向的认知与态度是通过社会互动建构的。项目引导学生反思家庭、媒体、校园文化如何塑造其对同性恋群体的认知，进而挑战刻板印象，重构理解框架。

It is believed that the cognition and attitude towards sexual orientation are constructed through social interaction. The program guides students to reflect on how family, media and campus culture shape their perception of the gay and lesbian community, thereby challenging stereotypes and reconstructing the understanding framework (Kite et al., 2022).

二、项目实施框架（5 个 Session，每节 90 分钟）

2. Program Implementation Framework (5 sessions, each 90 minutes)

（一）带领者核心能力准备（前置培训要点）

(1) Core Competence Preparation for Leaders (Key Points of Pre-Training)

在开展项目前，建议对心理咨询师、辅导员和大学生心理委员进行专项培训，重点掌握：

Before launching the program, it is recommended to conduct specialized training for psychological counselors, counselors and college student psychological committee members, with a focus on mastering:

1.理论基础：社会接触理论中 “最优接触条件” 的实操化（如如何确保小组内平等发言）；社会建构主义视角下的 “去评判性倾听” 技巧。

1.Theoretical basis: The practical application of the "optimal contact conditions" in social contact theory (such as how to ensure equal speaking within a group); The technique of "disjudgmental listening" from the perspective of social constructivism.

2.工具使用：熟悉 Homophobia Scale（HS，测量同性恋恐惧的认知、情感、行为维度）和 Ally Identity Measure（AIM，评估盟友身份的知识、支持行为、压迫觉知维度）的施测与结果解读。

2.Tool Usage: Be familiar with the implementation and result interpretation of the Homophobia Scale (HS, measuring the cognitive, emotional, and behavioral dimensions of gay and lesbian fear) and Ally Identity Measure (AIM, assessing the knowledge, supportive behavior, and oppressive awareness dimensions of ally identity).

3.危机处理：应对对话中可能出现的冲突，采用 “聚焦感受而非争论对错” 的引导策略。

3.Crisis Management: In response to potential conflicts in conversations, adopt a guiding strategy of "focusing on feelings rather than arguing about right and wrong".

（二）5 个 Session 的具体实施步骤

(2) Specific implementation steps for the five sessions

Session 1：建立对话基础与安全契约

Session 1: Establishing the Foundation for Dialogue and Security contracts

目标：消除陌生感，明确对话规则，区分 “对话” 与 “辩论” 的差异（Zúñiga et al., 2007）。流程：破冰活动；主题导入；安全契约制定；对话技能练习。

Objective: Eliminate the sense of strangeness, clarify the rules of dialogue, and distinguish the differences between "dialogue" and "debate" (Zuniga et al., 2007). Process: Ice-breaking activity; Theme introduction Formulation of safety contracts Practice of dialogue skills.

Session 2：探索性取向身份与社会影响

Session 2: Exploring Sexual Orientation Identity and Its Social Impact

目标：帮助学生认识性取向认知的社会建构过程，理解特权与压迫的存在（Zúñiga et al., 2007）。流程：身份叙事；“压迫网格” 活动；反思分享。

Objective: To help students recognize the social construction process of sexual orientation cognition and understand the existence of privilege and oppression (Zuniga

et al., 2007). Process: Identity narrative; "Pressing the Grid" campaign Reflection and sharing.

Session 3：热点议题的跨群体对话

Session 3: Cross-group Dialogue on Hot topics

目标：通过理性讨论争议话题，减少对立情绪，培养多元视角（Zúñiga et al., 2007）。流程：议题选择；“立场光谱” 讨论；共情练习；小结。

Objective: To reduce antagonistic emotions and cultivate multiple perspectives through rational discussion of controversial topics (Zuniga et al., 2007). Process: Topic selection; "Position Spectrum" discussion Empathy practice Summary.

Session 4：制定支持行动与盟友建设

Session 4: Develop Support Actions and Ally Building

目标：将认知转化为具体行为，强化 “盟友身份” (Jones et al., 2014)。流程：盟友行为清单；小组行动计划；承诺仪式。

Objective: To transform cognition into concrete actions and strengthen "ally identity" (Jones et al., 2014). Process: List of Ally Behaviors; Group action plan Commitment ceremony.

Session 5：总结反思与持续支持

Session 5: Summary, Reflection and Continuous Support

目标：巩固干预效果，链接长期支持资源。流程：变化分享；行动计划反馈；资源链接；结束仪式。

Objective: To consolidate the intervention effect and link up long-term support resources. Process: Change sharing; Feedback on the action plan Resource link The closing ceremony.

三、项目评估与优化建议

3.Program Evaluation and Optimization Suggestions

1.效果评估：通过 HS 和 AIM 的前测 - 后测数据对比，量化分析同性恋恐惧的降低程度及盟友身份的提升幅度；结合成员在焦点小组中的主观反馈（如 “现在更愿意为同性恋同学发声了”），综合评估效果。

1. Effect evaluation: By comparing the pretest and post-test data of HS and AIM, quantitatively analyze the degree of reduction in Homophobia and the extent of improvement in ally status; Based on the subjective feedback from members in the focus group (such as "Now more willing to speak up for gay and lesbian classmates"), the effect is comprehensively evaluated.

2. 本土化调整：若对话中发现学生对某类议题敏感度较高，可适当替换为更贴近校园生活的话题。

2. Localization adjustment: If it is found in the conversation that the student is highly sensitive to a certain type of topic, it can be appropriately replaced with a topic that is closer to campus life.

3. 长期跟踪：建议 1 个月后开展随访，了解行动计划的执行情况，通过“同伴督导会” 让带领者分享实操经验，持续优化方案。

3. Long-term follow-up: It is recommended to conduct a follow-up visit one month later to understand the implementation of the action plan. Through a "peer supervision meeting", the leader can share practical experience and continuously optimize the plan.

四、结语

4. Conclusion

高校心理咨询师、辅导员和大学生心理委员是推动校园包容性文化的核心力量。该项目通过 “理论 - 实践 - 反思” 的闭环设计，既能帮助学生减少偏见，也能提升带领者自身对性少数群体的理解与支持能力。若贵中心需要更详细的教案、量表工具或带领者培训材料，我愿全力配合。

College psychological Consultants, counselors and college student psychological committee members are the core forces promoting an inclusive campus culture. This program, through a closed-loop design of "theory-practice-reflection", can not only help students reduce prejudice but also enhance the leaders' own understanding and support for gays and lesbians. If your center requires more detailed teaching plans, scale tools or leader training materials, I am willing to fully cooperate.

期待与贵中心携手，让每一位学生都能在包容、尊重的校园环境中成长。

We look forward to working hand in hand with your center to enable every student to grow up in an inclusive and respectful campus environment.

邹姝姝 Shushu Zou

2025 年 7 月 10 日 July 10, 2025

Appendix D4: Research Application Intent Confirmation Letter

Research Application Intent Confirmation Letter

To Whom It May Concern,

This letter is issued by the **School of Languages and Communication, Chongqing University of Technology**, to formally confirm our intention to apply the research outcomes of **Ms. Shushu Zou** (Doctoral Candidate, **Behavioral Science Research Institute, Srinakharinwirot University, Thailand**) after the successful completion and oral defense of her doctoral dissertation entitled:

"Development and Validation of the Chinese Homophobia Scale"

Specifically, the School plans to:

1.Integrate the **Chinese Homophobia Scale** into our intercultural-communication curriculum as a diagnostic tool for students' attitude self-assessment;

2.Host a **training workshop on reducing homophobia**, to be designed and delivered by **Ms. Zou** in 2026 year;

3.Share anonymized findings with partner schools for **non-commercial educational purposes**, subject to ethics approval.

We understand that implementation will commence only after the final instruments and training materials have been approved by the university's **Academic & Ethics Committee**. This letter is provided to support the evaluation of **Ms. Zou's dissertation** and will be included in the dissertation appendix.

For further correspondence, please contact:

School of Languages and Communication Studies

Chongqing University of Technology

69 Hongguang Avenue, Banan District, Chongqing 400054, P. R. China
Tel: +86-23-6256-1770 | Email: 5149067@qq.com

Sincerely,

Zhou Rui

Dean.
School of Languages and Communication
Date: 28 October 2025

Research Application Intent Confirmation Letter

To Whom It May Concern,

This letter is issued by the "Chongqing Jiangbei District Four Seasons Spring Social Work Service Center" to formally confirm our intention to apply the research outcomes of Ms. Shushu Zou (Doctoral Candidate, Behavioral Science Research Institute, Srinakharinwirot University, Thailand) after the successful completion and oral defense of her doctoral dissertation entitled:

"Development and Validation of the Chinese Homophobia Scale"

We are particularly interested in the following components of the research:

1. The Chinese Homophobia Scale for use in our social work practice to assess and address homophobic attitudes within our community programs;

2. A training workshop on reducing homophobia, to be designed and delivered by Ms. Zou, aimed at enhancing the cultural competence of our social workers and volunteers;

3. The opportunity to collaborate with Ms. Zou on future research projects that focus on LGBTQ+ inclusivity and support within community settings.

We understand that the actual implementation of the research

outcomes will be scheduled after the thesis defense, pending final approval of the research instruments and training materials. This letter is provided to support the academic evaluation of Ms. Zou's dissertation and will be included in the dissertation appendix.

Should you require any further information, please contact us at the address below.

Chongqing Jiangbei District Four Seasons Spring Social Work Service Center

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Sincerely,

Director, Li Jia Qiu

Chongqing Jiangbei District Four Seasons Spring Social Work Service Center

Date: 21 October 2025

Appendix D5: Feedback letters from students after the courses

体会一：一位 heterosexual 学生的反思

Insight One: A Heterosexual Student's Reflection

作为一名从未深入思考过性取向议题的 heterosexual 学生，这门课程像一把钥匙，打开了我认知里的“盲区”。

As a heterosexual student who has never delved deeply into the issue of sexual orientation, this course was like a key that unlocked the "blind spots" in my understanding.

Session 2 的“压迫与特权”分析让我第一次意识到，“可以坦然牵起异性的手走在校园里”“不用担心被追问‘为什么不喜欢异性’”这些我习以为常的事，对同性恋同学而言可能是奢望。当同性恋同学分享“每次和同性朋友走得近都会刻意保持距离”时，我突然明白“特权”不是做错了什么，而是忽略了他人的困境。

The analysis of "Oppression and Privilege" in Session 2 made me realize for the first time that things I took for granted, such as "being able to hold the hand of the opposite sex and walk around the campus with ease" and "not worrying about being asked 'Why don't you like the opposite sex?'", might be luxuries for gay and lesbian classmates. When a lesbian classmate shared that "every time I get close to a lesbian friend, I deliberately keep a distance", I suddenly realized that "privilege" is not about doing something wrong, but about ignoring others' predicaments.

最触动我的是 Session 3 的“立场光谱”讨论。起初我对“校园设立性少数社团”持保留态度，觉得“没必要专门搞特殊”。但听一位同性恋同学说“这样的社团能让我们知道‘自己不是异类’”后，我慢慢站到了支持的一侧。现在遇到有人开恐同玩笑，我会下意识地说“这样不太尊重人”——这在以前是绝对不可能的。

What touched me the most was the "Position Spectrum" discussion in Session 3. At first, I was reserved about the establishment of a gay and lesbian club on campus, thinking that "there was no need to make a special deal out of it." But after hearing a gay

classmate say, "Such a club can let us know that 'we are not outliers'," I gradually sided with the side of support. Nowadays, when someone makes a homophobic joke, I would subconsciously say, "This is not very respectful to others" - something that was absolutely impossible in the past.

课程结束后，我把 AIM 量表里的“了解性少数资源”这条列进了 to-do 清单，开始主动关注相关科普。原来改变偏见不需要轰轰烈烈，只需要愿意放下预设，认真听别人的故事。

After the course ended, I added the item "Understanding resources of gays and lesbians" in the AIM scale to my to-do list and began to actively pay attention to related popular science. It turns out that changing one's prejudice doesn't require a grand spectacle; all it takes is being willing to set aside preconceptions and listen carefully to others' stories.

体会二：一位同性恋学生的感受

Insight Two: The Feelings of a Homosexual Student

报名时我很犹豫：在一群陌生人面前谈论性取向，会不会被当成“标本”？但五节课下来，我感受到了前所未有的被尊重。

When I signed up, I was very hesitant: Would talking about sexual orientation in front of a group of strangers be regarded as a "specimen"? But after five classes, I felt respected as never before.

Session 1 的安全契约制定让我放下了戒备。当大家一起约定“不追问隐私”“不评判经历”时，我第一次敢在非同性交友圈里说“我是同性恋”。有位 heterosexual 同学听完我的分享后说“原来你和我们没什么不同，都在为考试烦恼”，这句话比任何“支持宣言”都让我温暖。

The security contract formulation for Session 1 made me let down my guard. When everyone agreed together to "not inquire about privacy" and "not judge experiences", for the first time, I dared to say "I'm gay" in a non-gay social circle. After listening to my sharing, a heterosexual student said, "It turns out that you are no different from us; we are all troubled by exams." This statement warmed me more than any "declaration of support."

Session 4 设计“校园支持行动”时，小组决定制作“性少数友好地图”（标注哪些辅导员、心理咨询师更理解我们）。这个过程中，没有谁把我当成“需要被同情的人”，而是平等的合作者。有同学主动问我“这样的表述会不会让你们不舒服”，这种小心翼翼的尊重，比空泛的“我支持你”更有力量。

When designing the "Campus Support Action" in Session 4, the group decided to create a "GL + Friendly Map" (marking which consultants and psychological counselors understand us better). During this process, no one regarded me as "someone in need of sympathy", but as an equal collaborator. A classmate asked me voluntarily, "Will such an expression make you uncomfortable?" This kind of cautious respect is more powerful than the empty "I support you."

现在我敢在朋友圈转发性少数相关的文章了。课程没教会我“如何对抗歧视”，但让我相信：当更多人愿意了解而非预设时，改变就会发生。

Now I dare to share articles related to gays and lesbians in my Moments. The course didn't teach me "how to fight against discrimination", but it made me believe that when more people are willing to understand rather than presuppose, change will occur.

体会三：一位参与课程的心理咨询师的实践思考

Insight Three: Practical Reflections of a Psychological Consultants Who Participated in the Course

作为学校心理咨询师，我曾以为“不歧视”就是对性少数学生的最好支持。但带领这门课程后，我才意识到“中立”有时是另一种忽视。

As a university psychologist, I once thought that "non-discrimination" was the best support for students with gays and lesbians. But after leading this course, I realized that "neutrality" is sometimes another form of neglect.

社会建构主义理论在 Session 2 的应用给我很大启发。当学生讨论“为什么觉得同性恋‘不正常’”时，大家列举的“父母说的”“电视剧里演的”，恰恰印证了认知是被社会环境塑造的。这让我反思：咨询中是否过度强调“个体调适”，而忽略了引导学生挑战环境中的偏见？

The application of Social constructivism theory in Session 2 has greatly inspired me. When students discussed "why do they think gay and lesbian is' abnormal '?", the "what parents said" and "what was shown in TV dramas" they listed precisely confirmed that cognition is shaped by the social environment. This made me reflect: Is there an excessive emphasis on "individual adjustment" in the consultation, while neglecting to guide students to challenge biases in the environment?

最具挑战的是处理 Session 3 的冲突。有学生坚持“同性恋违背自然”，按照以往的习惯，我可能会急于纠正，但这次按课程技巧问“这种想法是从什么时候开始有的？”，结果对方分享了“奶奶因断后哭了好几天”的经历。这让我明白：偏见背后往往有未被看见的故事，倾听比说服更重要。

The most challenging part is handling the conflicts in Session 3. Some students insist that "gay and lesbian goes against nature". According to past habits, I might have been in a hurry to correct them, but this time I asked, "When did this idea start?" based on course techniques. As a result, the other party shared the experience of "grandma crying for several days because of the 'bereavement'." This made me understand that behind prejudice there are often unseen stories, and listening is more important than persuasion.

课程结束后，我调整了咨询记录模板，增加了“是否经历过性取向相关压力”的选项。对咨询师而言，这门课不仅是教学生如何包容，更是提醒自己：真正的支持，始于承认“我还有很多不知道的事”。

After the course ended, I adjusted the consultation record template and added an option to "Have you experienced stress related to sexual orientation?" For consultants, this course is not only about teaching students how to be inclusive, but also a reminder to themselves: true support begins with acknowledging that "I still have a lot of things I don't know."

体会四：一位班级心理委员的实践感悟

Experience Four: Practical Insights from a Class Mental Health Commissioner

作为心理委员，我总觉得“关注同学情绪”就是做好本职工作，直到参加这门课程才发现，我对“包容”的理解太浅了。

As a mental health commissioner, I always thought that "paying attention to classmates' emotions" was just doing my job well. It wasn't until I took this course that I realized my understanding of "tolerance" was too shallow.

Session 2 的“认知溯源”讨论让我想起班里一位男生 —— 他总是独来独往，有次被同学调侃“是不是喜欢男生”后就更沉默了。以前我只觉得“大家开玩笑没恶意”，但课程里同性恋同学分享“玩笑像针一样扎人”时，我突然意识到自己的“不作为”其实是在纵容伤害。

The "Cognitive Origin" discussion in Session 2 reminded me of a boy in my class - he was always on his own. Once, after being teased by a classmate about whether he liked boys or not, he became even more silent. Before, I only thought that "people joke around without ill intentions", but when a lesbian classmate in the class shared that "jokes are like needles pricking people", I suddenly realized that my "inaction" was actually condoning harm.

最有用的是 Session 4 设计的“微行动清单”。我试着在班级群里发了篇“性取向科普”文章，附言“觉得有用可以看看”，没想到有同学私下问我“如果身边有同性恋朋友，怎么相处才不冒犯？”。现在遇到有人拿性取向开玩笑，我会学着课程里教的那样说“每个人都有自己的生活方式，别这样说啦”，虽然声音不大，但至少不再沉默。

The most useful one is the "Micro-Action List" designed in Session 4. I tried to post an article titled "Popular Science about Sexual Orientation" in the class group chat, with the caption "If you find it useful, you can take a look." Unexpectedly, a classmate privately asked me, "If you have gay and lesbian friends around you, how can you get along without offending them?" . Now when I encounter someone making jokes about their sexual orientation, I would imitate what was taught in the course and say, "Everyone

has their own way of life. Don't say that." Although my voice is not loud, at least I no longer remain silent.

课程结束后，我把 AIM 量表里的“觉察压迫”维度记在本子上，提醒自己多观察同学的隐性压力。原来心理委员的责任不只是“解决问题”，更要在日常里种下尊重的种子。

After the course ended, I wrote down the "Perceived stress" dimension of the AIM scale in my notebook to remind myself to pay more attention to my classmates' latent stress. It turns out that the responsibility of a mental health commissioner is not merely to "solve problems", but also to plant the seeds of respect in daily life.

体会五：一位辅导员的工作反思

Insight Five: A Counselor's Work Reflection

从事学生工作多年，我总以“一碗水端平”自居，但这门课程像一面镜子，照出了我未曾察觉的“预设”。

Having been engaged in student work for many years, I have always regarded myself as "treating everyone equally", but this course is like a mirror, reflecting the "preconceived notions" that I had never noticed.

社会接触理论里“平等地位”的原则让我反思：开年级会时，我总说“大家要尊重多样性”，却从未主动邀请性少数学生分享想法 —— 这其实是把他们放在了“被讨论”而非“参与讨论”的位置。Session 3 讨论“宿舍关系”时，有学生提到“不敢和室友说自己喜欢同性”，这让我意识到：辅导员的“不干预”可能意味着“不保护”。

The principle of "equal status" in social contact theory made me reflect when holding grade meetings, I always said, "Everyone should respect diversity," but I never took the initiative to invite sexual minorities to share their thoughts - this actually placed them in the position of "being discussed" rather than "participating in the discussion." During Session 3 when discussing "dormitory relationships", a student mentioned that

they "dare not tell their roommates that they like the same sex", which made me realize that the counselor's "non-intervention" might imply "lack of protection".

课程中“行动计划”环节给了我工作启发。我借鉴“资源地图”的思路，整理了校内外性少数支持资源（包括心理咨询预约绿色通道、公益热线等），在新生手册里专门留了一页。有个学生看到后私信我：“原来学校真的有地方可以放心说这些事”，这句话让我明白：改变环境不需要惊天动地，把“隐性支持”变成“显性资源”就很有意义。

The "Action Plan" section in the course gave me inspiration for my work. Drawing on the idea of the "resource map", I sorted out the support resources for gays and lesbians both on and off campus (including the green channel for psychological counseling appointments, public welfare hotlines, etc.) and reserved a special page for them in the freshman handbook. One student saw this and sent me a private message: "So there really is a place in the school where you can talk about these things freely." This sentence made me understand that changing the environment doesn't need to be earth-shattering. Turning "implicit support" into "explicit resources" is very meaningful.

现在开班会，我会刻意加入“尊重差异”的案例讨论，不再空泛说教。这门课教会我的不是“如何教育学生”，而是“如何放下自己的固有认知，真正站在学生的角度想问题”。

Now when holding class meetings, I will deliberately incorporate case discussions on "respecting differences" instead of giving empty lectures. This course taught me not "how to educate students", but "how to let go of my own preconceived notions and truly think from the students' perspective".


QQ空间
她的主页
她的动态
亲密度 56
用户/应用/动态
返回个人中心
[退出]
337
照片
36
说说
0
日志
个人档
血型 其他
查看详细资料
留言板
我也留个言吧
私密留言
发表
查看更多留言
4月10日 17:27
玫瑰有千万种颜色，爱也是
恐同不是立场，是无知；偏见不是个性，是狭隘。性取向如同眼睛的颜色，是与生俱来的自然存在。爱没有高低之分，只有真心与否。支持 LGBTQ+ 群体，不是“宽容”，而是对基本人权的尊重。
一句嘲讽、一个白眼、一次排斥—— 你永远不知道，这些“微小”的恶意会让他人陷入多深的 展开全文
浏览53次
= LOVI
= LOVI
= LOVI
The Genderbread Pers
4月10日 17:27
玫瑰有千万种颜色，爱也是
恐同不是立场，是无知；偏见不是个性，是狭隘。性取向如同眼睛的颜色，是与生俱来的自然存在。爱没有高低之分，只有真心与否。支持 LGBTQ+ 群体，不是“宽容”，而是对基本人权的尊重。
一句嘲讽、一个白眼、一次排斥—— 你永远不知道，这些“微小”的恶意会让他人陷入多深的黑暗。恐同的背后，是刻板印象的枷锁，是拒绝理解的傲慢。
放下偏见，世界不会崩塌，但有人会因此重获新生。
科学告诉我们：
✅ 世界卫生组织（1990年）已将同性恋从精神疾病名单中删除。
✅ 性取向由基因、激素和环境共同作用形成，无法被“矫正”。
✅ 全球约4%-10%的人属于性少数群体，他们一直存在，从未“异常”。
如何打破恐同？
1. 学习取代臆断：了解 LGBTQ+ 群体的真实故事与科学事实。
2. 沉默等于纵容：当听到恐同言论时，请勇敢说“不”。
3. 支持身边人：一句“我尊重你”可能成为他人活下去的力量。
4. 推动改变：支持反歧视政策，让法律为平等护航。
致恐同者：
你以为你在捍卫“传统”，实则在传播仇恨；
你以为你在“保护孩子”，实则在教他们歧视；
恐同不是“观点自由”，而是暴力的一种。
真正的勇气，是接纳与自己不同的人。
我们呼吁：
学校教知识，也教尊重；
家庭讲亲情，也讲理解；
社会谈规则，也谈平等。
别让恐同的阴影，掩盖了人性的光芒。
请记住：

Appendix D6: The publication situation of academic papers

VITA

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