

**Wise Intervention for the Reduction of Aggressive Behaviors and the Promotion of
Prosocial Behaviors toward LGB-TNB People**

Project

September 25, 2025

University of Deusto. Bilbao.

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Justification for the Project

Despite the growing visibility, public awareness, and recognition of the rights of lesbian, gay, bisexual, trans, and non-binary (LGB-TNB) people, discrimination based on sexual orientation and gender identity continues to be a highly relevant social problem (Nogueira et al., 2022). In the past year, 20.3% of participants reported having experienced harassment, 22.9% discrimination, and 6.8% physical or sexual assaults (FELGTBI+, 2024). This indicates that greater exposure and recognition of the problem does not guarantee an effective reduction in discrimination and violence. Moreover, all these types of violence are associated with numerous social and mental health problems among LGB-TNB individuals during adolescence (e.g., Almeida et al., 2009; Guz et al., 2021; Lozano-Blasco & Soto-Sánchez, 2022), and they may persist into adulthood (Wang et al., 2018). This reality highlights the need to implement effective interventions aimed at addressing these aggressive behaviors and the mechanisms that sustain them. In this regard, numerous interventions have been carried out in school settings, but meta-analytical studies indicate that the effectiveness of universal preventive interventions with adolescents is very limited.

Why Do Interventions Targeted at Adolescents Fail?

Some characteristics of adolescence may cause traditional interventions to fail. Compared to children, adolescents are more sensitive to being respected and having their status and autonomy recognized (Yeager et al., 2018). Therefore, if adolescents perceive that adults are trying to manipulate them or impose behavior patterns in such a way that their autonomy is threatened, they will often resist.

Wise Interventions to Prevent Aggressive Behaviors among Peers

Wise interventions involve a set of rigorous techniques, grounded in theory and research, that address specific psychological processes to help individuals thrive in diverse life settings (see Walton & Wilson, 2018, for a review). In recent years, a proliferation of intelligent interventions has addressed countless social and personal problems with striking results. These are very brief interventions that lead to long-lasting changes in people's behavior (Calvete et al., 2021; Miu & Yeager, 2015). In fact, the results obtained with this type of intervention in adolescent behaviors are highly promising (Calvete et al., 2021; Calvete et al., 2023; Fernández-González et al., 2020; Miu & Yeager, 2015; Yeager et al., 2013).

Objectives of the Project

The aim of this project is to adapt an intelligent intervention to the LGB-TNB context. In addition, its effectiveness will be evaluated, primarily aimed at (1) reducing online and offline aggression among adolescents, especially based on sexual orientation and gender identity, and (2) increasing the intention to support and prosocial behaviors when participants witness such aggression, particularly that directed at LGB-TNB individuals. As a secondary objective, (3) age will be evaluated as a possible moderating variable of the intervention's effectiveness.

Methodology

Participants: The participants will be students from 9th grade to 12th grade, aged between 14 and 18 years. The final sample will consist of approximately 1,000 adolescents (500 in each group). Inclusion criteria include adequate reading comprehension and both parental and self-informed consent.

Design and Procedure: A randomized controlled trial with two groups will be used. Randomization will be done by clusters, using the classroom as the unit. First, the schools will be selected according to their characteristics. Then, half of the participants will be randomly assigned to the experimental condition (condition 1) and the other half to the control condition (condition 2). Participants will complete an online assessment protocol using Qualtrics, which will be composed of different questionnaires at five time points: (1) pretest (one week before the intervention), (2) immediate-posttest (immediately after the intervention), (3) a three-month follow-up, (4) a six-month follow-up, and (5) a nine-month follow-up. The study has the approval of the Ethics Committee of the University of Deusto. The trial will be registered on ClinicalTrials.gov.

Interventions: Two intervention models will be used, both of similar duration (approximately 1 hour), so that the experimental intervention will be compared with a parallel control intervention.

- 1. *WISE Intervention LGB-TNB:*** This intervention will be designed to reduce aggressive behaviors based on sexual orientation and gender identity and to promote prosocial behaviors toward these individuals. The intervention will include three components: (1) reading scientific studies on people's capacity for change. In addition, they will read other studies on how thoughts and emotions influence behavior through brain pathways, and how these pathways can be modified under certain circumstances; (2) reading testimonies that support the idea that people can change. These testimonies include accounts from

victims or perpetrators based on sexual orientation and gender identity, incorporating important components of empathy and prosocial behaviors toward victims. To enhance credibility, participants will be informed that these accounts were written by other young people who had previously participated; and (3) self-persuasion exercises that involve an active commitment to change.

2. ***Value Alignment Intervention:*** This intervention will be based on the same change strategies as the experimental intervention but will not address aspects related to prosocial or aggressive behaviors toward LGB-TNB individuals. Instead, it will be applied to improve adolescents' eating habits.

Instruments

The target variables of this study will be measured using self-report questionnaires completed online through the Qualtrics® platform:

Offline and Online Perpetration. Perpetration, both offline and online, among peers will be measured. On the one hand, offline perpetration will be assessed using the Spanish adaptation of seven items (Ortega-Ruiz et al., 2016) from the European Bullying Intervention Project Questionnaire (Brighi et al., 2012). For this study, six items will be used, rated on a 5-point Likert scale ranging from 1 (never) to 5 (more than once a week) (e.g., “How often have you stolen or damaged someone’s belongings?”). On the other hand, online perpetration will be assessed by adapting items from the cyberbullying questionnaire (Calvete et al., 2010; Gámez-Guadix et al., 2014). Although the original questionnaire evaluates the frequency of online perpetration with nine items, for this project five items will be used (e.g., “How often have you intentionally excluded someone from a social media group [Instagram, WhatsApp groups, TikTok]?”). These questions will be answered on a 5-point Likert scale ranging from 1 (*never*) to 5 (*almost every week*).

Beliefs and Attitudes. Beliefs and attitudes toward LGB-TNB individuals based on their sexual orientation and gender identity will be assessed. Negative attitudes related to sexual orientation will be measured using the adaptation of the *Negative Attitudes Toward Gay Men* questionnaire (Davies, 2004), specifically the *Affective Reaction* subscale. Although the original scale only assesses attitudes toward male homosexuality, in this study, attitudes toward both gay men and lesbian women will be evaluated. These will be measured with 10 items that will be rewritten in a positive way to avoid revictimization of any LGB participant in the study (e.g., “Homosexual behavior is morally acceptable”). Beliefs about gender identity will be assessed using the adaptation of the *Transphobia Scale* (Nagoshi et al., 2008), composed of 12 items. In this case, the items will also be rewritten positively to avoid revictimization of any TNB participant in the study (e.g., “A person’s genitals do not define their gender”). Both questionnaires will be

evaluated using a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Affirming Support Behaviors toward LGB-TNB People. To assess actions and practices that support LGB-TNB individuals, the *LGBT-Affirming Behavior* questionnaire by Poteat (2015) will be used. These behaviors will be assessed with five items (e.g., “I participated in some act of advocacy for LGB-TNB people”), answered on a 5-point Likert scale ranging from 1 (*0 times*) to 5 (*7 or more times*).

LGB-TNB Microaggressions. Microaggressions toward LGB-TNB people based on their sexual orientation and gender identity will be assessed. Microaggressions related to sexual orientation will be measured using the 20 items of the *Sexual Orientation Microaggression Scale* (SOMS-P; Botor & Tuliao, 2025) (e.g., “I have used the term ‘that’s so gay’ when talking about something negative”). This questionnaire consists of four subscales: (1) Identity Invalidation, (2) Assumption of Pathology, (3) Heterosexist Language, and (4) Enforcement of the Binary Gender Role. On the other hand, gender identity-based microaggressions will be assessed using the *Gender Identity Microaggression Scale* (GIMS-P; Botor & Tuliao, 2025) (e.g., “I have been unfriendly to someone because they dressed in a way that does not conform to the gender norms expected of them”). This questionnaire consists of five subscales, but for this project participants will respond to five items corresponding to two subscales: (1) Behavioral Discomfort, and (2) Denial of Social Transphobia. For this project, the wording of items from both questionnaires will be adapted to be more understandable for adolescents. In addition, although the response scale in the original versions evaluates the occurrence of microaggressions (0 = No, 1 = Yes), in this study a 5-point Likert scale will be used, ranging from 1 (*never*) to 5 (*almost every week*).

Offline and Online Aggression toward LGB-TNB People. Offline aggression and discrimination behaviors based on sexual orientation and gender identity will be assessed using the Spanish version (Orue et al., 2018) of the *Homophobic Bullying Scale* (Prati, 2012). The scale will be adapted to capture aggressive behavior based on sexual orientation and gender identity (e.g., “You spread negative rumors/gossip about a trans or non-binary person”). On the other hand, online aggression and discrimination behaviors will be assessed using eight items from the subscales *Sexual Orientation-Based Violence Perpetration* and *Gender Identity-Based Violence Perpetration* of the *Technology-Facilitated Gender- and Sexuality-Based Violence Questionnaire* (TFGSV; Martínez-Bacaicoa et al., 2023) (e.g., “You insulted someone for being gay, bisexual, or non-heterosexual”). Both questionnaires will be answered on a 5-point Likert scale ranging from 1 (*never*) to 5 (*daily*).

Sensitivity to Justice. Sensitivity to unjust situations will be assessed using 10 items from the *Observer Sensitivity* subscale of the *Justice Sensitivity Inventory* (Schmitt et al., 2010) (e.g., “I

brood for a long time when someone is treated better than others for no reason”). Items will be answered on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

The variables described below will be measured using some initial scenarios.

Bystander Intention. The intention of different courses of action will be evaluated when participants witness aggressive behaviour based on sexual orientation and gender identity. To do this, a measure previously developed by the research team and used in previous projects will be employed. After reading each scene, participants will respond to five items in which they will rate different ways of reacting to aggression on a 5-point Likert scale, from 1 (strongly disagree) to 5 (strongly agree). The items to be answered are as follows: (1) I would tell those doing it that it's not funny and to stop, (2) I would show support or give advice to the person being bullied, (3) I would tell an adult what is happening, (4) I would join in with the comments they are making, and (5) If I saw a similar situation on social media, I would forward those photos, messages, videos, etc.

Moral Disengagement. To measure moral disengagement, participants will read the scenarios and respond to eight items for each scenario that represent the eight mechanisms that allow people to morally disengage (Bandura, 2016). As in previous research with similar characteristics (Martínez-Bacaicoa et al., 2024), the items will be adapted to fit the context of each scenario (e.g., “Gay people deserve to receive comments like this” or “Trans people deserve to receive comments like this”). Responses will be collected using a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Exposure to LGB-TNB Aggressions. Exposure to LGB-TNB aggressions will be assessed through two questions about experiences as a witness of situations similar to those described in the scenarios, either in face-to-face or digital contexts. The questions will specifically address exposure to LGB aggressions on the one hand, and TNB aggressions on the other: “*Have you ever witnessed a situation like this in which you hear offensive comments about trans or non-binary people, either in person or through social media?*” and “*Have you ever witnessed a situation like this in which you hear offensive comments about homosexual people, either in person or through social media?*” Participants will be asked to select one of the following response options: “*Yes, and I reacted in some way (e.g., defended, showed support, sought an adult, joined the negative comments, forwarded the content),*” “*Yes, but I did nothing,*” or “*No, I have never witnessed something like this.*”

Prosocial Behavior. Participants who report having been exposed and having reacted will complete an additional item to assess prosocial behavior, where they must select all the behaviors they carried out from the following: (1) I defended the person who was being targeted, (2) I showed support to the person who was being targeted after the incident, (3) I told an adult, (4) I joined in the comments or also laughed, (5) I forwarded or shared related content on social media. In addition, an open-response option will be included.

Healthy and Unhealthy Food Intake. The intake of healthy and unhealthy foods will be assessed using the Spanish adaptation of the *KIDMED 2.0* questionnaire, validated in a sample of Spanish children and adolescents (López-Gajardo et al., 2022). This scale consists of 16 items (e.g., “I eat 1–2 servings of fruit per day,” “I drink commercial sugary soft drinks, commercial juices, and/or milkshakes once or more per week”). Although the response scale of the original version is dichotomous (0 = No, 1 = Yes), in this project a 5-point Likert scale will be used, ranging from 1 (*never*) to 5 (*always*).

Alignment of Healthy Eating Habits. The alignment between healthy eating habits and participants’ values will be assessed using seven items developed by Bryan et al. (2019). Specifically, the perception of healthy eating will be evaluated from two perspectives: four items to assess issues related to promoting social justice (e.g., “When I choose to eat healthy, I am helping to make the world a better place”) and three items to assess the expression of autonomy and independence (e.g., “When I eat healthy, I feel that I am taking control of my food choices”). The seven items will be answered on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Statistical Analyses

We will use several statistical analysis strategies, including Hierarchical Linear Modeling (HLM) with HLM 7.03, using the FIML estimation method. At Level 1, the repeated measures of the dependent variables will be included (on the one hand, offline and online perpetration, LGB-TNB beliefs and attitudes, and offline and online microaggressions and aggressions toward LGB-TNB people; and, on the other hand, prosocial behaviors, sensitivity to justice, and bystander helping intention). At Level 2, the experimental condition and educational level (using dummy variables), as well as the interaction term between experimental condition and this variable, will be included. At Level 3, the average level of aggressive behaviors and prosocial behaviors in the classroom where the participant is located will be included.

Timeline

	Year 1				Year 2			
Quarter	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Submission of the report and application to the UD Ethics Committee								
Approval obtained from the UD Ethics Committee								
Intervention design								
Contact with schools and obtaining permissions								
Fieldwork (implementation of assessment protocols and interventions)								
Drafting of the first progress report								
Data analysis								
Drafting of the second progress report								
Drafting of scientific manuscripts								
Diffusion								
Drafting of the final scientific and financial reports								

Q = Quarter. **Q1**: September to November; **Q2**: December to February; **Q3**: March to May; **Q4**: June to August

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