**University of British Columbia** 

Social Ecological Economic Development Studies (SEEDS) Sustainability Program

**Student Research Report** 

# The Influence of Free Price Information and Anti-Stigma Statement on Students' Intention to Access Counselling Services

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**UBC sustainability** 

# The Influence of Free Price Information and Anti-Stigma Statement on Students' Intention to Access Counselling Services

Group 23: Let's Get Help

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### **Executive Summary**

The current research question of the study was "how the information that counselling services are free and an anti-stigma statement influence students' intention to access UBC's counselling services". To operate the study, we hypothesized that providing clear information about the free price and using an anti-stigma statement would increase the intention of students to access UBC's mental health counselling services compared to those not exposed to the information. We operated a between-subjects 2×2 factorial design, two independent variables are information of free price and anti-stigma statement. We obtained a final sample of 204, and used an online survey to measure the intention of participants to access UBC's mental health counselling services. We used a two-way ANOVA analysis, the results showed no significant main effect of information of free price and anti-stigma statement; no significant interaction effect between information of free price and anti-stigma statement; no significant interaction effect between information of free price and anti-stigma statement; no significant interaction effect between information of the price and anti-stigma statement. Therefore, the result was inconsistent with our hypothesis. We suggested targeting stigmas more directly through the use of video intervention, self affirmation framing for targeted statements, and small incentives for completing screening surveys.

#### Introduction

Globally, people's mental health is such a big health issue that about one third of individuals struggle with mental illness at some point in their lifetime (Vigo et al., 2016). In the University of British Columbia (UBC), a substantial number of students suffer from mental health issues, even the one year, the prevalence of having been diagnosed or treated for mental illness among UBC students in 2021 reached 24% (The University of British Columbia, n.d.). Although UBC provides various kinds of health services and resources for students, including counselling services that support students' mental health, many students do not reach out to make them useful. Based on student research done in 2022, less than one fifth of UBC students reported having used UBC mental health services before (Gill et al., 2022).

According to the Health Belief Model, the likelihood of an individual performing a health behaviour depends on two assessments, including perceived threats and perceived benefits and barriers (Becker, 1979; Becker & Rosenstock, 1984; Rosenstock, 1966). Regarding the perceived threats, the theory proposed that people were more likely to perform a health behaviour when there were high threats perceived by the person if they did not perform the health behaviour. Also, the theory suggests that a health behaviour is more likely to be performed when the action is associated with high benefits and low barriers to taking action as perceived by the individual. This study focused on lowering the barriers of taking action, namely, reducing the barriers of seeking professional help from UBC's mental counselling services for students

Financial barriers were recognized as major barriers to using available health resources. A previous national review suggested that high cost is one of the critical factors for medical care avoidance (Taber et al., 2015). Counselling services are also commonly known as being expensive, this could be a potential barrier for UBC students deciding not to reach out to the university counselling services. Indeed, many UBC students have little knowledge about school counselling services; 61.6% of students have only heard the name of UBC counselling services or have never heard about them (Gill et al., 2022). In this case, most students may not know the school provides affordable counselling services to students that are completely free. It is likely that the information gap about the cost dampens students' intentions and real actions to reach out.

Turning to the psychological aspect, stigma was considered a prominent barrier to using mental health resources. Stigma, as defined by Link and Phelan (2001), is the phenomenon that a less powerful group in a society is linked with negative stereotypes and so is subjected to discrimination. Specific to the stigma against mental health problems, Corrigan et al. (2015) suggested that people who are suffering from mental illness are viewed as more different from other people, compared to people with other health conditions. This means that people with mental health problems are more likely to be kept away from others and subjected to social alienation. In terms of using healthcare, mental health-related stigma was found to prevent people from accessing and using health services (Campo-Arias et al., 2014; Kular et al., 2019; Nichols & Newhill, 2022). To deal with the negative impact of mental health-related stigma, many anti-stigma intervention techniques were being researched. Previous literature showed that anti-stigma interventions are effective in reducing help-seeking-related stigma, improving help-seeking attitudes and the comfort level of disclosing mental health problems, and increasing help-seeking behaviours (Shahwan et al., 2020; Henderson et al., 2017; Maulik et al., 2017).

With these in mind, we designed a project to reduce perceived financial and psychological barriers in order to facilitate UBC students' help-seeking behaviours towards school counselling services. We decided to focus on the intention of seeking help since the intention was considered as a great predictor of voluntary behaviours (Ajzen, 1985). Thus, this research aims to find out whether explicitly communicating the minimal requirement of finance and using an anti-stigma statement to reduce stigma can be two effective means for increasing students' intention to access UBC's counselling services, as well as whether there is an interaction effect between these two strategies. Considering the identified knowledge gap, we aim to explore how the information that counselling services are free and

an anti-stigma statement influence students' intentions to access UBC's counselling services. We hypothesized that providing clear information about the free price and using an anti-stigma statement would increase the intention of students to access UBC's mental health counselling services compared to those not exposed to the information.

#### Methods

#### **Participants**

Since our study population is UBC students, we aimed to recruit participants through convenience sampling using the social networks of the research team as well as distributing the study survey in UBC buildings. In a power analysis, assuming a minimum effect size = 0.2,  $\alpha = 0.05$ , power = 0.8, we would need a sample of N = 277 participants. Our original sample consisted of N = 231. After removing respondents who failed to complete the question on measuring the dependent variable, we obtained a final sample of N = 204.

Since we set demographic questions as optional, demographic information, for gender, age, and student year level, was only collected from those who answered the particular relevant question. Amongst participants who answered the gender question (N = 190), 63.7% were female, 33.2% were male, 1.6% were non-binary/third gender, and the rest of the 1.6% preferred not to say (see Appendix A Figure 1). The average age of the participants (N = 175) was  $21.92 \pm 2.52$ . Respondents' current year level at UBC ranges from the first year to over 8 years (N = 75). 9% of respondents were first-year students, 11% were from the second year, 20% were from the third year, and 49% were fourth-year students, which is almost half of our participants. 3% were from the fifth year, and 8% were from the eighth year or more.

## **Conditions**

We operate a between-subjects 2×2 factorial design with 4 conditions. Each condition contained a screenshot of the sidebar column of the UBC counselling services webpage with the title "counselling service", contact information, address, open hours, and service update information (https://students.ubc.ca/health/counselling-services). Both independent variables were manipulated in the screenshot. The first independent variable was the information of the free price. We operationalized it by using the message "for free!". Two levels of this independent variable were not having the message of free service (i.e., "NoFree" level) versus having the message (i.e., "Free" level). The second independent variable was anti-stigma, which was operationalized by using the statement "Everybody needs help at some point". The statement was used to oppose the stigmatised belief that people with mental health problems are different from others (Corrigan et al., 2015). Two levels of the anti-stigma were not having the statement (i.e., "NoIntervention" level) versus adding the statement to the picture (i.e., "Intervention" level). We put the message "for free!" next to the title and the anti-stigma statement below the title. It was because we wanted to make that additional information salient on the picture so that participants would not be distracted by other information below it.

Control Condition: the control condition remains the original screenshot of the counselling service webpage (see Appendix B Figure 4).

Free Condition: besides the original information in the screenshot, information on free counselling service with a phrase of "for free!" was added (see Appendix B Figure 5).

Anti-stigma Condition: the anti-stigma statement was added with a sentence of "Everybody needs help at some point" (see Appendix B Figure 6).

Free and Anti-stigma Condition: the phrase "for free!" and the anti-stigma statement "Everybody needs help at some point" was added (see Appendix B Figure 7).

# Measures

The online survey had four questions (see Appendix C Figure 8 & 9). Question 1 was used to measure the dependent variable that UBC students' intention of seeking help from mental counselling services. This item was selected from the Mental Help Seeking Intention Scale (MHSIS) (*Mental Help*)

Seeking Intention Scale (MHSIS) – Dr. Joseph H. Hammer, n.d.). Since all three items in the MHSIS are indistinguishable, we adopted one item to avoid confusion for participants. Participants were asked to rate their intention based on the statement "If I had a mental concern, I would intend to seek help from a UBC mental health professional" on a 7-point likert scale ranging from 1 (i.e., extremely unlikely) to 7 (i.e., extremely likely). Question 2 to 4 were aimed to collect demographic information of participants from three aspects, including gender, age, and student's year level, and those three questions are optional to answer. The question that asked for gender had four options, participants can choose between female, male, non-binary/third-gender, or prefer not to say. The question asking for age can be answered by entering a numerical number. The last question that asks for the year level of participants contains eight choices. They can choose between 1, 2, 3, 4, 5, 6, 7, 8+.

## Procedure

The finalized Qualtrics survey was distributed through inviting students at UBC buildings (i.e., Walter C. Koerner Library and AMS Student Nest) and on social media platforms (i.e., Instagram, Discord, WeChat) from March 17 to April 1, 2023. The survey started with a consent form so that if they choose to not consent, the survey immediately reached to the end (see Appendix D Figure 10). Participants who consented to participate were randomly assigned into one of four conditions. In each condition, they saw the corresponding picture that was used to present manipulations of independent variables. The original image was a screenshot from the sidebar column on the counselling service page of UBC website. We used Photoshop to add additional information on it to manipulate two independent variables for different conditions. Below the picture, participants answered the single-item questionnaire that was used to measure students' intention of help-seeking. This question was made to be a forced response question that has to be answered before going to the next page. The reason we set it up this way is that the question is the only one that measures the dependent variable, so we need to collect this data for yielding results. Following the intention question, participants were asked to answer three optional demographic questions that were optional. They were optional because demographics are not a priority for our analysis.

After finishing the data collection, the data set was exported from Qualtrics into Excel for processing. In order to analyze the results, we excluded the responses that failed to complete Question 1 (i.e., the question measuring the dependent variable) and then imported them into JASP for ANOVA analysis. For participant variables, we extracted the responses to each of the three variable-related questions separately. When doing analysis for age, one data was manually excluded as an outlier.

#### Results

A Two-way ANOVA analysis was conducted to investigate the effect of two independent variables (Information of free price and Anti-stigma) on a dependent variable (Intention). The data was collected using a single-itemed survey instrument and analysed using JASP with a significance level of  $\alpha = 0.05$ .

The results of two-way ANOVA analysis showed no significant main effect of information of free price, F(3, 200) = 1.79, p > .05,  $\eta^2 = 0.009$ , and no significant main effect of anti-stigma statement, F(3, 200) = 0.14, p > .05,  $\eta^2 = 6.828 \times 10^{-4}$  (see Appendix E Figure 11). The results suggested that providing salient information that UBC counselling services are free on school webpage or adding an anti-stigma statement did not increase students' intention of seeking help from UBC mental health counselling services, suggesting that our result is inconsistent with the hypothesis that providing clear information about the free price and using an anti-stigma statement will increase the intention of students to access UBC's mental health counselling services compared to those not exposed to the information.

Also, there was no significant interaction effect between information of free price and antistigma, F(3,200) = 0.94, p > .05,  $\eta^2 = 0.005$  (see Appendix E Figure 11). The lack of a significant interaction between anti-stigma and information of free price suggested that the intention of students to seek help from UBC mental health counselling services neither depend on the existence of the antistigma statement nor the existence of information of free price. Again, the results do not support our hypothesis.

#### Discussion

The objective of this study was to determine whether providing anti-stigma and free price statements near the contact information for UBC Counselling Services has an effect on the intention to seek counselling in students. The usage of anti-stigma statements and information of free price did not significantly impact participants' intention to seek counselling services. Across conditions, information on free price may increase intention to seek counselling when unpaired with the anti-stigma statement (see Appendix B Figures 4-7), but this trend was not significant (see Appendix E Figure 11).

Our sample was gender-biased, with 63.7% of the respondents identifying as women (see Appendix A Figure 1). Researchers Miles and Naumann (2023) demonstrated the role of the social self concept in its relation to both gender and the intentions of college students' to seek counselling. Women and sexual minorities tend to have higher anxiety, lower social self concepts, and greater intentions to seek counselling than their male counterparts, which is hypothesised to be a result of the higher stress and risk of victimisation women face (Miles and Naumann, 2023). Therefore the skewed gender ratio in our represented population sample is inherently biased to score higher on the MHSAS, which is demonstrated in the consistently high MHSAS scores across our conditions (see Appendix E Figure 10). In our experiment, we used one statement item of the MHSAS on a 7 point Likert scale to evaluate the participant's level of intention towards seeking counselling services. Tests on the generalizability, validity and comparison to other major intention scales show that the MHSAS is reliable in measuring intention according to the Theory of Planned Behaviour (TBP) (Hammer, Parent and Spiker, 2018; Ajzen, 1991). The TPB is a statistical framework built on the idea that human intention can be predicted by a combination of societal norms, personal attitudes, and level of perceived control (Ajzen, 1991). However, much of the broad statistical variance in literature between behavioural intention and behaviour is unexplained by the model (Miller, 2017). Using the MHSAS and TPB to measure intention to seek counselling services thus may be limited in measuring whether or not our population sample would actually then use the service, regardless of the results.

Stigma itself is often pointed to as a major obstacle in seeking resources for mental health (Campo-Arias et al., 2014; Kular et al., 2019; Nichols & Newhill, 2022), but tackling it is another issue in of itself. Our experiment used statements that would be placed on the UBC counselling services website, however our results show that our manipulation was unsuccessful in changing the intention level of the sample population. Our experiment also did not include demographic information pertaining to the cultural backgrounds of individuals, which could have had an impact on our overall results. In AAPI students, which make up a distinct portion of the UBC student population (Gill et. al., 2022), intention to seek counselling is mediated by both stigma (self, public, by close others) and by the broader value based systems they exist in (Asian, European American) (Choi and Miller, 2014). Hence, our experimental design failed to account for the effects of culture on both stigma and the intention to seek counselling services. Through a more in depth multi-scale analysis of university student's help-seeking behaviour, researchers El-Hachem et. al. (2012) found that self-stigma was ultimately the strongest predictor of intentions to seek help. Our statement "Everybody needs help at some point" thus may be too general and impersonal to elicit a meaningful response and effectively target self stigma.

While previous research indicated there is a major financial barrier in accessing mental health resources (Taber et. al., 2015), our experimental manipulation of adding the message "for free!" did not statistically increase the intention to seek counselling services in our population. Sutherland, Christianson and Leatherman (2008) point to the use of financial incentives in public programs in order to increase health care behaviours in low income populations. The lack of effect for our free price manipulation thus reiterates both need to target self stigmas (El-Hachem et. al., 2012) and the possibility

of small incentives for use in increasing intention to seek counselling behaviours (Sutherland et. al., 2008).

#### **Recommendations for UBC Client**

The first order of impact is addressing both awareness of and access to the UBC counselling services website. We would like to emphasise targeting populations through outreach that have a diagnosis for a mental health disorder, or are at risk. This can be done through both screening and using the UBC email system to target the broader student base. Screening can be done through emailed surveys with a small incentive to participate (Sutherland et. al., 2008). Emails to the student population should aim to address self stigmas (El-Hachem et. al., 2012) and cultural stigmas (Choi and Miller, 2014) to increase the effectiveness in outreach. These measures may not increase the relative health behaviour itself, but act to increase the awareness of these services should they be needed.

Future interventions should aim to more directly target stigmas in order to enact meaningful change. Kruger et. al. (2022) used video intervention to successfully increase the intentions to seek counselling in a university student population. The video focused on a documentary format that showcased similarly aged peers and their recovery process from serious mental illnesses (schizophrenia and bipolar disorder), while directly targeting stigmas and stereotypes (Kruger et. al., 2022). Video interventions can be easily implemented into general courses offered at UBC, and can include information positively framing the usage of UBC's counselling services and where to access these resources more directly. Lannin et. al. (2013) used a self-affirmation writing task to demonstrate the direct relationship between self stigma and willingness to seek counselling. By increasing an individual's sense of self worth they are less likely to respond defensively in response to what can be seen as a threat to the self (Lannin et. al., 2013). Thus, the UBC counselling services website may also want to consider messaging that encompasses an individual's value or self worth, such as "you are worth it."

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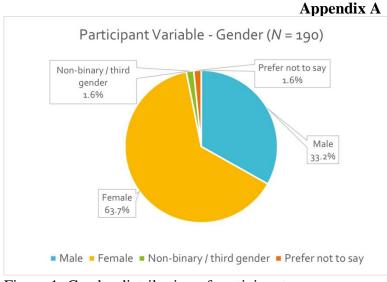


Figure 1: Gender distribution of participants.

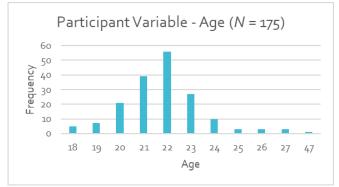


Figure 2: Age distribution of participants.

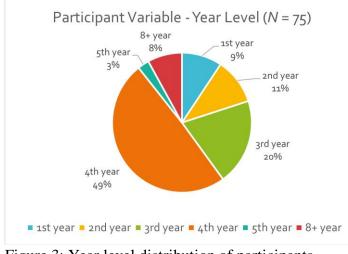


Figure 3: Year level distribution of participants.

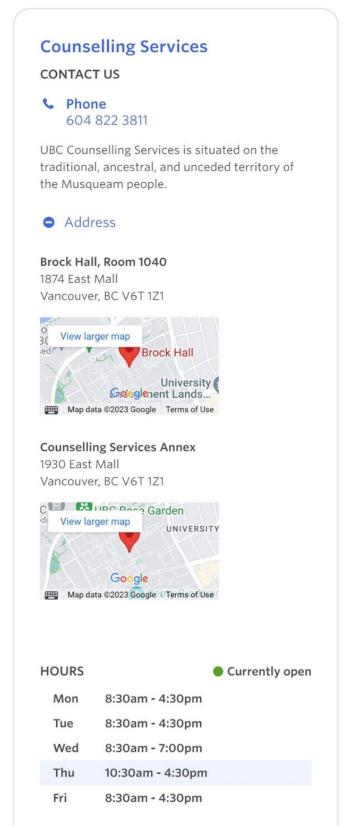


Figure 4: Picture used in condition 1.

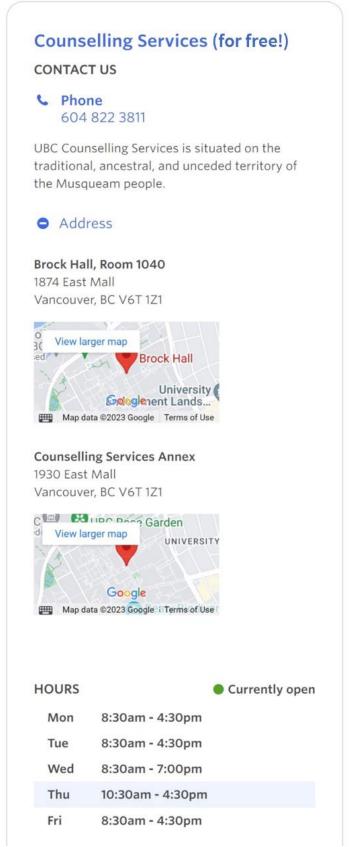


Figure 5: Picture used in condition 2.

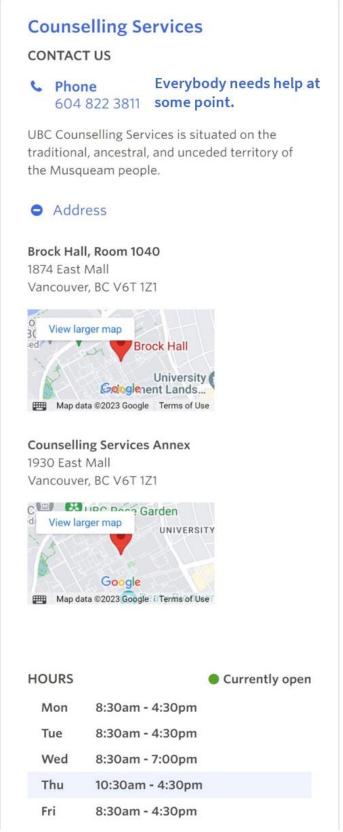


Figure 6: Picture used in condition 3.

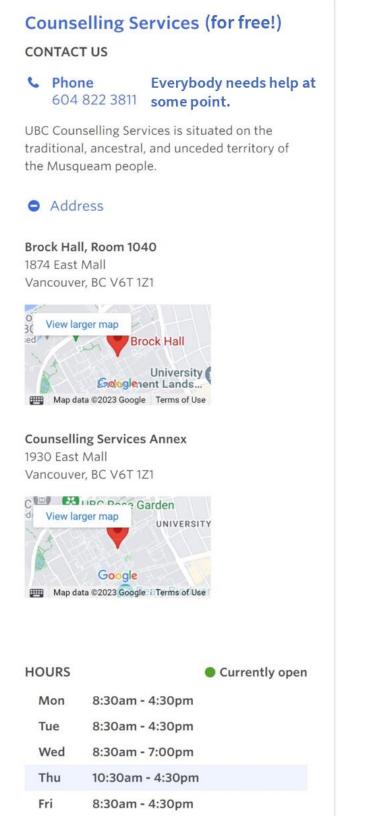


Figure 7: Picture used in condition 4.

## Appendix C

In this section, we are asking a question based on the image above. Please select the best option.

If I had a mental concern, I would intend to seek help from a UBC mental health professional.

Extremely unlikely	Somewha	at unlikely	Neither likely nor unlikely	Somew	hat likely	Extremely likely
1	2	3	4	5	6	7
intention to se	ek help					
			•			

Figure 8: First survey question measuring the intention of seeking help.

16

What is your gender identity?

O Male

O Female

O Non-binary / third gender

O Prefer not to say

What is your age (please enter a whole number)?

What year are you?

O 7

O 8+

Figure 9: Survey question 2-4 were used to collect demographic information of participants, including their gender, age, and year level in UBC.

#### Appendix D

UNIVERSITY OF BRITISH COLUMBIA

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#### Consent Form

Class Research Projects in PSYC 421 - Environmental Psychology

Principal Investigator:

Dr. Jiaying Course Instructor Department of Psychology Institute for Resources, Environment and Sustainability Email: jiayingz@psych.ubc.ca

#### Introduction and Purpose

Students in the PSYC 421 – Environment Psychology class are required to complete a research project on the UBC campus as part of their course credit. In this class, students are required to write up a research proposal, conduct a research project, collect and analyze data, present their findings in class, and submit a final report. Their final reports will be published on the SEEDS online library (https://sustain.ubc.ca/teaching-applied-learning/seeds-sustainability-program). Their projects include online surveys and experiments on a variety of sustainability topics, such as waste sorting on campus, student health and wellbeing, food consumption and diet, transportation, biodiversity perception, and exercise habits. The goal of the project is to train students to learn research techniques, how to work in teams and work with UBC clients selected by the UBC SEEDS (Social Ecological Economic Development Studies) program.

#### Study Procedures

If you agree to participate, the study will take about 10 minutes of your time. You will answer a few questions in the study. The data will be strictly anonymous. Your participation is entirely voluntary, and you can withdraw at any point without any penalty. Your data in the study will be recorded (e.g., any answer you give) for data analysis purposes. If you are not sure about any instructions, please do not hesitate to ask. Your data will only be used for student projects in the class. There are no risks associated with participating in this experiment. Confidentiality

Your identity will be kept strictly confidential. All documents will be identified only by code number and kept in a locked filing cabinet. You will not be identified by name in any reports of the completed study. Data that will be kept on a computer hard disk will also be identified only by code number and will be encrypted and password protected so that only the principal investigator and course instructor, Dr. Jiaying Zhao and the teaching assistants will have access to it. Following the completion of the study, the data will be transferred to an encrypted and password protected hard drive and stored in a locked filing cabinet. Please note that the results of this study will be used to write a report which is published on the SEEDS library.

#### Remuneration

#### There is no remuneration for your participation.

#### Contact for information about the study

This study is being conducted by Dr. Jiaying Zhao, the principal investigator. Please contact her if you have any questions about this study. Dr. Zhao may be reached at (604) 827-2203 or <u>jiayingz@psych.ubc.ca</u>. Contact for concerns about the rights of research subjects

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

**Consent:** Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time. You also may postpone your decision to participate for 24 hours. You have the right to choose to not answer some or any of the questions. By clicking the "continue" button, you are indicating your consent to participate; hence, your signature is not required. The researchers encourage you to keep this information sheet for your records. Please feel free to ask the investigators any additional questions that you have about the study.

Ethics ID: H17-02929

Figure 10: Consent form of participating in the study.

#### **→**

## Appendix E

#### ANOVA - Intention

Cases	Sum of Squares	df	Mean Square	F	р	η²	ω²
Information of free price	4.142	1	4.142	1.787	0.183	0.009	0.004
Anti-stigma	0.321	1	0.321	0.139	0.710	6.828×10 <sup>-4</sup>	0.000
Information of free price * Anti-stigma	2.175	1	2.175	0.939	0.334	0.005	0.000
Residuals	463.550	200	2.318				

Note. Type III Sum of Squares

#### Descriptives - Intention

Information of free price	Anti-stigma	Ν	Mean	SD	SE	Coefficient of variation
Free	Intervention	50	4.560	1.431	0.202	0.314
	NoIntervention	52	4.846	1.289	0.179	0.266
NoFree	Intervention	54	4.481	1.679	0.229	0.375
	NoIntervention	48	4.354	1.657	0.239	0.380

## Descriptives plots

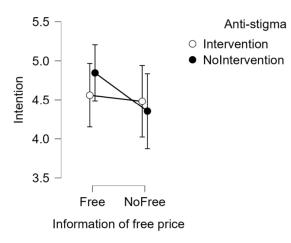


Figure 11: ANOVA Data Analysis for intention level

# **Contribution table of group members**

	Proposal	Make survey	Data collection	Data analysis	Presentation	Report
Fengran Qiao	background, research questions, hypothesis, measures, reference, appendix; revise other parts	yes	yes	yes	participant variables, condition, measures, results	introduction, participants, condition, procedure, result, reference, appendix
Seerat Dhanoa	1		yes		dicussion & implication	dicussion, recommendation
Chandler Wang	measures, statistical analysis		yes		results	results, formatting, appendix
Jayden Gosal	revise and proodread everything		yes		introduction	summary, proofreading
Keira Feng	anticipated outcomes		yes		participant variables	measures, proofreading
Jinshuo Liu	conditions		yes		condition, measures	conditions, summary, formatting