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EXAMINING THE ASSOCIATION BETWEEN FAMILY COHESION AND THE RISK OF SUBSTANCE USE IN OFFSPRING

Angelica Mendoza

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EXAMINING THE ASSOCIATION BETWEEN FAMILY COHESION AND THE
RISK OF SUBSTANCE USE IN OFFSPRING

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Social Work

by
Angelica Noemi Mendoza

May 2023

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May 2023

Approved by:

Dr. Caroline Lim, Faculty Supervisor, Social Work

Dr. Yawen Li, M.S.W. Research Coordinator

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ABSTRACT

Background and Purpose: Progress has been made in understanding substance use and its transmission, whether it be biological or environmental, yet there is a lack of research in understanding protective factors and the disruption of developing a substance use disorder. The study was aimed to fill the gap in our understanding of protective factors against familial transmission of substance use disorders by examining the association between family resilience and the risk of transmission to an offspring. We hypothesized that those without a substance use diagnosis would have higher levels of family functioning compared to those with a substance use diagnosis. **Methods:** This study gathered quantitative data using self-report questionnaire. Participants were recruited using nonprobability sampling. A structured 12 item scale was used to identify general family functioning. Individuals with at least one biological parent with a diagnosed substance use disorder were invited to participate through the Co-PI's social network. Participants were asked a few demographic questions followed by questions about their family function, resilience, and substance use. This observational study used a cross-sectional independent sample t-test to examine the relationship between family resilience and its protection against familial transmission of substance use disorders. Descriptive statistics were generated to summarize demographics, number diagnosed with a substance use disorder, and level of family functioning. **Findings:** The study sample included 32 individuals who have a biological parent diagnosed with a substance use

disorder. An ethnically diverse sample were mostly White, educated women with a religious affiliation. These participants were mostly individuals in their 30's and college graduates. On average, participants with a substance use diagnosis reported higher levels of family functioning compared to those without a substance use diagnosis. About half of the participants reported their mother as being the biological parent with a substance use disorder. Results suggest that the difference in family functioning between the two groups is not statistically significant. **Conclusion:** Findings emphasize the need for further research on substance use and its disruption of transmission.

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CHAPTER ONE

PROBLEM FORMULATION

Substance Use

Substance use is a large social problem that many Americans face. Whereas some use substances recreationally, others suffer from a substance use disorder. According to SAMHSA (2020), individuals with a substance use disorder display recurrent use of alcohol, or other drugs, or both, which result in impairment including health problems, disability, and failure to meet major responsibilities at work, school, or home.

Prevalence of Substance Use Disorder

Substance use is a serious social problem given the number of Americans who are impacted. In 2020, close to 60 million individuals aged 12 or older used some form of illicit drugs. (Substance Abuse and Mental Health Services Administration [SAMHSA], 2021). Furthermore, the percentage who used illicit drugs in the past year increased from 17.8 percent in 2015 to 20.8 percent in 2019.

The COVID-19 pandemic intensified the situation. As individuals were spending more time at home, the previously cited study stated the usage of substances had increased among users (SAMHSA, 2021).

Risk and Protective Factors

There is no single factor that determines whether one person will develop a substance use disorder (NIDA, 2020). All individuals have risk factors and

protective factors. Known risk factors include family history, age of first use or initiation, and using injectable drugs, to name a few. Although substance use affects people from all walks of life, certain groups have been found to have higher percentages of usage. For example, men are more likely to use almost all illicit drugs than women (National Institute on Drug Abuse [NIDA], 2022).

However, NIDA (2022), found that men “have higher rates of use or dependence on illicit drugs” for most age groups, although adolescents have a higher risk.

Although no single factor causes substance use disorder, an individual’s risk of developing the disorder increases as the number of risk factors increases (NIDA, 2020). It is important to note that a risk factor for one individual may not be a risk factor for another and protective factors can be implemented.

Protective factors are characteristics or conditions that reduce the risk.

Protective factors can be categorized through levels, such as individual-level, parental-child relationship levels, and family-level factors.

Effects of Substance Use Disorders

The effects of substance use can bleed into many areas of a user's life. A user’s school or work performance may start to shift. The user may become disinterested in the tasks at hand, work performance may decrease, and tardiness and absences may increase, resulting in a bad reputation at such places. Not only does the use of substances put users at risk for physical health issues, but it can also put users at risk for mental health issues. With substance use disorders, the user is not the only one who suffers. In the book Tweak:

growing up on methamphetamines (2007), written by Sheff, he shares a father's experience as a caregiver by stating that when their son is using, their entire life is completely consumed by worry (p.314). When one family member drastically shifts in mood, health, and financial stability, the other members feel the effects as well and will eventually suffer consequences.

Substance Use Interventions

There are many things that can be done to help address the problem of substance use. Education is a very important factor to consider. Educating young kids and teenagers at a level that is developmentally fitting, on the short-and-long term effects of drug use is a factor in preventing substance use disorders. Advocating for health insurance that includes addiction rehabilitation centers is another way to help address the issue. If substance use is happening, harm reduction agencies are a great way to help reduce any further spreading of disease and overdoses and are a great hub for users to get connected to social service programs that may help meet their needs.

Although some individuals, families and the greater society may think there are no solutions while looking at this major social problem, there are interventions that are aimed at addressing this issue.

Micro intervention aims at working with an individual in a one-on-one setting. Psychotherapy is a common intervention used for individuals who struggle with a substance abuse disorder. Some examples of these therapies include Cognitive Behavioral Therapy, 12-step Facilitation Therapy, and

Motivational Enhancement Therapy, to mention a few. These kinds of therapies target behavior and attitude modification related to drug use, provide incentives for abstinence, and focus on building skills to better handle life stressors and environmental factors that may contribute to drug use (National Institute on Drug Abuse, 2020).

Harm reduction is an intervention that has been used throughout the nation that aims to “reduce negative consequences associated with drug use” (National Harm Reduction Coalition, 2021. This intervention method provides users with clean supplies to prevent intravenous diseases.

As presented above, substance use should not only be a social problem, but a personal one. At times, all that is needed is a shift perspective. People who use drugs could be anyone's sister, brother, parent, or friend. People are people. The substance use disorder does not make someone less of a person and does not invalidate their experiences. Although there are many agencies and organizations researching new methods of intervention, substance use disorders are still a major problem that will need further research and insight.

CHAPTER TWO

LITERATURE REVIEW

Substance Use Disorders

Parental substance use disorder has become an important aspect of drug addiction research. Scientists have sought to understand the risk, mechanism, and outcomes of familial transmission. This chapter reviewed the findings from this body of research.

Risk to Offspring

Researchers have argued whether developing a substance use disorder is a result of “nature or nurture”. Enoch & Goldman (2001) found that with alcoholism, parental history increases risk by five times in offspring. Biederman et al. (2000) concluded that “exposure to parental substance use disorder predicted substance use in offspring.”

Impact of Parental Substance Use

Transmission of substance use is not the only category in which there is a greater risk. Meulewaeter et al. (2022) found that children of parents with a substance use disorder experienced feelings of loneliness and neglect during childhood, in a qualitative study targeted at learning the experiences of individuals who had a parent with a substance use disorder who then developed a substance use disorder as adults. The same study also reported that these adults had difficulty developing interpersonal connections because of the isolation and shame surrounding their upbringing (Meulewaeter et al. 2022). It is

also common for children to take on responsibilities that are not always developmentally appropriate for children to take on, known as parentification, because of their parent's substance use. Research shows that taking on this parental role as a child can lead to abnormal characteristics such as "depression, anxiety... and conduct problems" (Hedges, 2011, p.260).

Mechanism of Transmission of Substance Use

Research has examined the mechanisms of familial transmission of substance use and found that according to SAMHSA 2014, there is a greater risk for individuals to develop a substance use disorder if initiation is in early adolescence (ages 10-13) rather than in adulthood. Research has also found that there is a higher risk of developing a substance use disorder for daughters who have a maternal figure with a substance use disorder (Kosty et al., 2015; Kuo et al., 2021).

Protective Factors Against Transmission

Individual Level Factors

A study by Lensch et al. (2021) found that the presence of protective factors has reduced the probability of co-occurring disorders, such as substance abuse and psychological distress, among adolescents. The research further discusses such protective factors; emotional competence, such as mindfulness and cognitive competence, such as school connectedness.

Parent-Child Relationship

Just like individual-level protective factors are important, the parent-child relationship plays an important role. Rusby et al. (2018) found in a study, that open communication and closeness between parents and adolescents predicted lower levels of substance use

Family-Level Factors

Research has found that higher levels of familism, in other words, families with an intact, two parent home served as a protective factor for lower risk of future alcohol use (Ewing et al. 2014).

Gaps

As described above, efforts have been geared toward investigating the risk, mechanism, and outcomes of familial transmission. There has been less attention on identifying the factors that protect offspring against familial transmission after exposure to parental substance use. In the small body of research, researchers have focused on individual-level factors rather than on family-level factors. Wlodarczyk et al. (2017) believe that this is an understudied topic within the world of substance use disorders and families impacted by it.

Aim of Study

This study aims to fill the abovementioned gap in knowledge by examining resilience in families impacted by addiction. Guided by the family resilience theory, this study seeks to identify salient strengths and resources in families

exposed to parental substance use and investigate their protection against transmission to an offspring.

Conceptual Framework

Family resilience theory is aimed at explaining the ability families have to overcome challenges and adversity. Theory presumes making sense of adversity, having a positive outlook, spirituality and transcendence, flexibility, connectedness, mobilizing economic and social resources, clarity, sharing emotions openly, and solving problems collaboratively are nine dynamic processes that make up a resilient family (Walsh, 2016). Therefore, higher levels of the above characteristics would result in higher levels of resilience; families with higher levels of connectedness/functioning would have lower risk of transmission against substance use disorders.

Significance of Study

This research investigation is important for many reasons. Families who struggle with substance use disorders may find this information helpful to disrupt the cycle of addiction with early intervention and prevention. The results of this research will allow many places to educate and encourage the implementation of such protective factors in schools, after school programs, churches, and various other settings where children are present. When intergenerational transmission of substance use disorders is disrupted, families could avoid the financial burden this kind of disease can place on them such as treatment options and medical

expenses. If families dealing with addiction can implement or put these protective factors into place, this could result in less familial transmission. Findings of this study have the potential to impact not just individual family units but the greater society as substance use is a major social problem.

CHAPTER THREE

METHODS

This chapter will discuss the way the research was conducted including participants, recruitment, study design, sampling techniques, measures and data analysis.

Participants

Eligible participants are 18 or older, have at least one parent with a substance use disorder and can read and understand English.

Recruitment

Participants were recruited using nonprobability sampling, specifically convenience and purposive sampling methods. The research flier, which contains a brief description of the study and invites eligible individuals to participate, was posted on the Co-PI's social network. Individuals who received the research flier and met the study's eligibility criteria self-enrolled by scanning the QR code or clicking on the link provided on the recruitment flier. Doing so directed them to the online survey. Prospective participants were invited to complete a screening questionnaire to determine their eligibility before being directed to the informed consent document and the survey. Once their eligibility had been established, prospective participants were invited to read the informed consent. Prospective participants provided consent to participate by checking a

box at the bottom of the informed consent document that reads, “I have read and understood the consent document and agree to participate in your study.”

Data Collection

Quantitative data was gathered using self-report validated questionnaires posted online. Participants were asked a few demographic questions followed by questions about their family function and resilience and substance use. This took approximately 15-20 minutes, and participants did not receive monetary compensation. Participants were invited to complete a survey only once.

Study Design

This observational study used cross-sectional data to determine the relationship between family resilience and its protection against familial transmission of substance use disorders. Given the cross-sectional nature of the study, results cannot be inferred as causation.

Sampling Techniques

The study implemented nonprobability sampling by using convenience and purposive sampling methods to recruit study participants. Anyone in the general population who fit the eligibility criteria and provided consent could self-enroll in the study. Individuals who completed the study were invited to pass along the recruitment flier and survey information to others in their network who may fit the eligibility criteria.

Measures

Demographics

Data on participants' age at the time of research participation, gender (male, female, non-binary, prefer not to say), ethnicity/race (white, black or African American, American Indian, or Alaskan Native, Asian Hawaiian or Pacific Islander, Hispanic/Latinx), marital status (single, divorced/separated, married widowed), educational level (less than a high school diploma, high school diploma, trade school/vocational school, some college/no degree, college degree), religious affiliation (Christian, Jewish, Buddhist, Muslim, Hindu, other) were gathered

Substance Use

A set of questions were asked on substance use. Participants' risk of substance use was measured using a question that asks, "have you ever been diagnosed with a substance use disorder." In addition, participants were asked to indicate their age at the height of their parents' addiction and which parent has the diagnosed substance use disorder (biological mother or father).

Family Functioning and Resilience

The questionnaire used is from the McMaster Family Assessment Device. According to Epstein, Baldwin, and Bishop (1983), the device is used to collect information on various dimensions of the family system as a whole and how they function. There are seven scales, but only one scale that targets "general functioning will be used for this survey. There are twelve items with four possible

ratings for each statement: strongly agree, agree, disagree, and strongly disagree. The General Functioning scale is made up of questions such as: “in times of crisis, we can turn to each other for support,” and “individuals are accepted for what they are.” The questionnaire is a self-report measure. The response options are summed and then divided by the number of items in the scale, 12. For the purpose of this study, the even items on the scale were reverse coded. Therefore, higher scores will indicate higher levels of family functioning. This measure is used in studies that focus on addiction and has been shown to have good psychometric properties (Murphy & Bentall, 1999; Şenormancı et al., 2014.; Asi Karakaş & Ersöğütçü, 2021).

Data Analysis

Descriptive analysis was performed to yield summary statistics of participants demographics, number diagnosed with a substance use disorder, and level of family functioning. An independent sample t-test was conducted to examine the relationship between family functioning and the transmission of substance use disorders. Statistical significance was determined at p-value <.05. Analysis was performed with SPSS using data from participants with complete information.

CHAPTER FOUR

RESULTS

Demographics

The data was taken from the general population who completed the online survey who fit the eligibility criteria. Forty-seven individuals responded to the survey but 15 were deleted, due to nonresponse to most if not all the questions on the survey. Therefore, data from 32 participants were used for the purpose of the study.

Table 1 displays the sample's demographic characteristics. The average age of the sample is 32 ($M = 32.32$, $SD = 6.7$, range = 28). Most of the participants are females ($n=30$, 93.75%). Most of the participants identified as White ($n=16$, 50%). All participants had some educational experience, but most of the participants had a college degree ($n=26$, 81.25%). Six in 10 participants (61.54%) are married and the remaining (38.46%) are unmarried. Most of the participants identified as having a religious affiliation, specifically Christian ($n=21$, 77.78%). In general, participants were White educated females, who were religiously affiliated.

Table 1. Descriptive Statistics on the Participants' Demographic Characteristics, Family Functioning, and Substance Use

Table 1
Descriptive Statistics on the Participants' Demographic Characteristics, Family Functioning, and Substance Use (N = 31)

Variables	n (%)
Age, <i>M</i> (<i>SD</i>)	32.3 (6.7)
Sex	
Male	2 (6.25)
Female	30 (93.75)
Ethnicity	
White	16 (50.0)
Hispanic / Latinx	10 (31.25)
Black	4 (12.50)
Other	2 (6.25)
Marital Status	
Married	20 (64.52)
Unmarried ^a	11 (35.48)
Religious Affiliation	
Christian	21 (77.78)
Other ^c	6 (22.22)
Level of Education	
Less than college degree ^d	6 (18.75)
College degree	26 (81.25)
Family Functioning, <i>M</i> (<i>SD</i>) ^b	2.18 (.7)
Substance Use Disorder Diagnosis	
No	28 (90.32)
Yes	3 (9.68)

^aUnmarried comprise individuals who are single, divorced, or separated

^bFamily functioning was measured with a 12-item scale with a 4-point Likert Scale and higher scores represent higher levels of family functioning

^cOther is comprised as individuals who identified as Buddhist and Other.

^dLess than college degree comprise high school diploma, trade school / vocational school, some college no degree

Participants Family Functioning

The sample's average family functioning score was not indicative of high nor very low family functioning ($M = 2.18$, $SD = .7$, range = 2.9).

Substance Use Diagnosis

Table 2 displays the sample's percentage of diagnosis based on descriptive characteristics. Most of the participants did not have a substance use disorder diagnosis ($n = 28$; 90.32%). Among participants who identified as White, 20% of them reported having been diagnosed with a substance use disorder. This is compared to 0% among ethnic minorities. Among those who are married,

none reported having been diagnosed with a substance use disorder compared to 15% of those who are married. Among those who have been married, 15% of them have a substance use diagnosis compared to 0% of those who are unmarried. 12% of those with a college degree have a substance use diagnosis compared to 0% of the participants without a college degree.

About half of the participants reported their mother as being the biological parent with a substance use disorder (53.6%). The participants' age at the peak of the parents' substance use ranged from the minimum being two and the maximum age being 43, ($M = 12.07$, $SD = 8.5$, $range = 41$). This may not be represented fairly given that some participants experienced multiple episodes of their parents having severe addiction peaks.

Table 2. Substance Use Diagnosis by Demographic Characteristics

Table 2
Substance Use Diagnosis
by Demographic
Characteristics

Variables	Have Been	
	Diagnosed	Not Diagnosed
Race and Ethnicity	n (%)	n (%)
White	3 (20%)	12 (80%)
Minority	0 (0%)	16 (100%)
Marital Status		
Unmarried	0 (0%)	10 (100%)
Married	3 (15%)	17 (85%)
Level of Education		
Less than College Degree	0 (0%)	6 (100%)
College Degree	3 (12%)	22 (88%)
Religious Affiliation		
Christian	3 (14.3%)	18 (85.7%)
Other	0 (0%)	5 (100%)

Bivariate Analysis

On average, participants with a substance use diagnosis reported higher levels of family functioning compared to those without a substance use diagnosis, ($M = 2.54$ $SD = .2$) versus ($M = 2.13$, $SD = .7$). The results of the Levene's test for homogeneity of variance indicates that equal variances are assumed ($F = 2.00$, $p > .05$). Results of the t-test assuming equal variances for the two groups suggests that the difference in family functioning is not statistically significant $t(29) = .93$, $p = .36$. Despite the statistical insignificance, the magnitude of the differences in the means (mean difference = .40, 95% CI [-.49, 1.30]) is between small and medium (Cohen's $d = 0.35$).

CHAPTER FIVE

DISCUSSION

This study aimed to fill the gap in our understanding of protective factors against familial transmission of substance use disorders by examining the association between family resilience and the risk of transmission to an offspring.

Overall, upon completion of analysis, the results did not support the study's hypothesis that those without a substance use disorder would have higher levels of family functioning compared to those with a substance use disorder. We found that those without a substance use disorder reported lower levels of family functioning compared to those with a substance use disorder. Yet, this finding was not statistically significant.

The statistically insignificant finding may be explained by the nature of family behavior. It can be said that family members who are the sickest tend to have family rally around them because of their need. It is possible that the participants with a substance use disorder report higher levels of family functioning because they are individuals in recovery. Because of this, family may be rallying around them, supporting them, creating more family resilience. They may have had a diagnosis in the past but are currently in recovery. Chances are those in an active episode of substance use are not going to be participating in our study. If they would, they might report lower family functioning scales. The findings suggest that family functioning is not a protective factor against familial

transmission. Previous studies have not specifically investigated the relationship between family resilience and transmission of substance use disorders, as the transmission of substance use disorders is a complex issue that can have many contributing factors.

Limitations

There are a few limitations to this study. Firstly, the sampling error may be large as the results of the study do not have high generalizability as characteristics of the general population do not match with the sample; predominately female, college educated, and have a biological parent with a diagnosed substance use disorder. Secondly, the people who are participating in the study are most likely not in the thick of a substance use episode, therefore healthier participants are the ones participating in the study, which can explain why most of the sample does not have a substance use diagnosis. As this study was a self-report survey, we do not know to what extent a self report measures tallies well with an objective assessment of the topic. It is possible that participants who did not receive a substance use diagnosis might struggle with substance use but nonetheless not formally diagnosed. Therefore, the rate of diagnosis of substance use disorder found in this sample may represent an underreporting.

Another limitation can be found within the survey itself. Participants were only given one option when identifying which biological parent had the diagnosed substance use disorder, however, it is possible that both biological parents had

diagnosed substance use disorders. There was a limitation in the number of participants who completed the survey therefore creating a barrier to statistical significance. Given the cross-sectional nature of the study, results could not be inferred as causation. This research design was chosen due to the time limitation.

Conclusion

This cross-sectional study examined family functioning and the transmission of familial substance use diagnosis and found a statistically insignificant difference in family functioning between those with a substance use disorder and those without a substance use disorder. Recommendations for future research include gathering data from a larger sample size for better generalizability and the inclusion of those without a diagnosis who are living with a substance addiction.

APPENDIX A
INSTRUMENT – QUALTRICS SURVEY

Q: I am at least 18 years of age or older.

- Yes

Q: I can read and understand English

- Yes

Q: One of my biological parents has been diagnosed with a substance use disorder.

- Yes

Demographic Characteristics

Q: Gender

- Male, Female, Non-binary, Prefer not to say

Q: Age

- _____

Q: Ethnicity/Race

- White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, Hispanic/Latinx, Other

Q: Marital Status

- Single, Married, Divorced/Separated, Widowed

Q: Highest level of education

- Less than a high school diploma, High school diploma, Trade school/vocational school, Some college-no degree, College degree

Q: Do you have a religious affiliation? If so, please select one:

- Christian, Jewish, Buddhist, Muslim, Hindu, Other

Please rate your agreement or disagreement with how well each statement describes your family.

Q: Planning family activities is difficult because we misunderstand each other

- Strongly agree, Agree, Disagree, Strongly disagree

Q: In times of crisis we can turn to each other for support.

- Strongly agree, Agree, Disagree, Strongly disagree

Q: We cannot talk to each other about the sadness we feel.

- Strongly agree, Agree, Disagree, Strongly disagree

Q: Individuals are accepted for what they are.

- Strongly agree, Agree, Disagree, Strongly disagree

Q: We avoid discussing our fears and concerns.

- Strongly agree, Agree, Disagree, Strongly disagree

Q: We can express feelings to each other.

- Strongly agree, Agree, Disagree, Strongly disagree

Q: There are lots of bad feelings in the family.

- Strongly agree, Agree, Disagree, Strongly disagree

Q: We feel accepted for what we are.

- Strongly agree, Agree, Disagree, Strongly disagree

Q: Making decisions is a problem for our family.

- Strongly agree, Agree, Disagree, Strongly disagree

Q: We are able to make decisions about how to solve problems.

- Strongly agree, Agree, Disagree, Strongly disagree

Q: We don't get along well together.

- Strongly agree, Agree, Disagree, Strongly disagree

Q: We confide in each other.

- Strongly agree, Agree, Disagree, Strongly disagree

Q: Who is the biological parent with the diagnosed substance use disorder?

- Mother, Father

Q: How old were you at the height of your parents addiction?

- _____

Q: Have you ever been diagnosed with a substance use disorder?

- Yes, No

APPENDIX B
DEBRIEFING STATEMENT

We will provide participants with contact information of agencies if they become distressed during their study participation. The list of counseling services is attached to this section of the application.

Counseling Services: If you become distressed during your participation in this study, please consider contacting one of the following counseling services available to you at no cost:

1. California Peer-Run Warm Line is a non-emergency resource for anyone in California seeking emotional support: 1-855-845-7415

2. Crisis Text Line: Text HOME to 741741.

APPENDIX C
INFORMED CONSENT

The study in which you are being asked to participate is designed to investigate family resilience as a protective factor for familial transmission of substance abuse disorders. This study is being conducted by Angelica Mendoza a graduate student, under the supervision of Dr. Caroline Lim, Assistant Professor in the School of Social Work at California State University, San Bernardino. This study has been approved by the Institutional Review Board, California State University, San Bernardino.

PURPOSE: This study aims to fill the gap in our understanding of familial protective factors against familial transmission of substance use disorders.

DESCRIPTION: Participants will be asked a few demographic questions in the beginning followed by questions about family function and resilience and questions about substance use.

PARTICIPATION: Your participation is completely voluntary and you do not have to answer any questions you do not wish to answer. You may skip or not answer any questions and can freely withdraw from participation at any time.

CONFIDENTIALITY: We will be gathering anonymous data. This means we will not collect any information that will identify you (e.g., your name, social security number, contact information, video recording). We will present findings from this study in group format only so that no results will be connected to a participant. We will protect the data against inappropriate access by restricting data access to authorized study personnel. We will store the data on computers or laptops secured with individual ID plus password protection. Additionally, the

folder containing the data will be protected with a password known to authorized study personnel. We will destroy the data three years after the project has ended.

DURATION: The expected duration of the online survey will be about 15-20 minutes.

RISKS: Although not anticipated, there may be some discomfort in answering some of the questions. You have the right to skip or refuse to answer any question that may make you uncomfortable. You also have the right to terminate at any point with no risk. You can choose to skip or stop answering any questions that make you uncomfortable. You can also withdraw from participation at any time with no consequences. To do so, simply exit the survey.

BENEFITS: There are no direct benefits to the research participants. However, findings from this study have the potential to advance knowledge on prevention of substance use.

CONTACT: If you have any questions about this study, please feel free to contact Principal Investigator: Dr. Caroline Lim, caroline.lim@csusb.edu / Co-Principal Investigator: Angelica Mendoza, 007952120@coyote.csusb.edu.

RESULTS: Results of the study can be obtained from the Pfau Library Scholar Works database at California State University after June 2023.

CONFIRMATION STATEMENT:

I have read and understand the consent document and agree to participate in your study.

APPENDIX D
IRB APPROVAL

December 15, 2022

CSUSB INSTITUTIONAL REVIEW BOARD
Expedited Review
IRB-FY2023-99
Status: Approved

Caroline Lim, Angelica Mendoza
CSBS - Social Work
California State University, San Bernardino
5500 University Parkway
San Bernardino, California 92407

Dear Caroline Lim, Angelica Mendoza:

Your application to use human subjects, titled “Examining the association between family cohesion and the risk of substance use in offspring ” has been reviewed and approved by the Institutional Review Board (IRB) of CSU, San Bernardino. The CSUSB IRB has weighed the risk and benefits of the study to ensure the protection of human participants. The study is approved as of December 15, 2022. The study will require an annual administrative check-in (annual report) on the current status of the study on --. Please use the renewal form to complete the annual report.

This approval notice does not replace any departmental or additional campus approvals which may be required including access to CSUSB campus facilities and affiliate campuses. Investigators should consider the changing COVID-19 circumstances based on current CDC, California Department of Public Health, and campus guidance and submit appropriate protocol modifications to the IRB as needed. CSUSB campus and affiliate health screenings should be completed for all campus human research related activities. Human research activities conducted at off-campus sites should follow CDC, California Department of Public Health, and local guidance. See CSUSB's COVID-19 Prevention Plan for more information regarding campus requirements.

If your study is closed to enrollment, the data has been de-identified, and you're only analyzing the data - you may close the study by submitting the Closure Application Form through the Cayuse Human Ethics (IRB) system. The Cayuse system automatically reminds you at 90, 60, and 30 days before the study is due for renewal or submission of your annual report (administrative check-in). The modification, renewal, study closure, and unanticipated/adverse event forms are located in the Cayuse system with instructions provided on the IRB

Applications, Forms, and Submission Webpage. Failure to notify the IRB of the following requirements may result in disciplinary action. Please note a lapse in your approval may result in your not being able to use the data collected during the lapse in the application's approval period.

You are required to notify the IRB of the following as mandated by the Office of Human Research Protections (OHRP) federal regulations 45 CFR 46 and CSUSB IRB policy.

Ensure your CITI Human Subjects Training is kept up-to-date and current throughout the study.

Submit a protocol modification (change) if any changes (no matter how minor) are proposed in your study for review and approval by the IRB before being implemented in your study.

Notify the IRB within 5 days of any unanticipated or adverse events are experienced by subjects during your research.

Submit a study closure through the Cayuse IRB submission system once your study has ended.

The CSUSB IRB has not evaluated your proposal for scientific merit, except to weigh the risks and benefits to the human participants in your IRB application. If you have any questions about the IRBs decision please contact Michael Gillespie, the IRB Compliance Officer. Mr. Michael Gillespie can be reached by phone at (909) 537-7588, by fax at (909) 537-7028, or by email at mgillesp@csusb.edu. Please include your application approval number IRB-FY2023-99 in all correspondence. Any complaints you receive regarding your research from participants or others should be directed to Mr. Gillespie.

Best of luck with your research.

Sincerely,

King-To Yeung

King-To Yeung, Ph.D., IRB Chair
CSUSB Institutional Review Board

KY/MG

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