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Explanatory model of stress symptoms in relatives of people with alcohol consumption problems

Estefany Marlene López Charles[1], *Francisco Rafael Guzmán Facundo*[1], *Ricardo Azael Quintero Domínguez*[2], *Josefina Sarai Candia Arredondo*[1], *Karla Selene López García*[1]

ABSTRACT

Objective: To analyze the effects of alcohol consumption in a family member, stressful situations, coping strategies, social support, hope and family functionality on stress symptoms in relatives of people with alcohol consumption problems. **Materials and methods:** The design was descriptive, correlational, cross-sectional and model checking. The sampling was non-probabilistic by quotas. The sample comprised 161 alcohol consumers and family members. Seven instruments were used. **Results:** It was identified that the alcohol consumption of a person presented a positive effect with the stressful situations of a family member ($p < .05$). It was shown that the presence of stressful situations had a positive effect on the family member's stress ($p < .001$). Coping styles ($p < .05$) and social support ($p < .05$) were found to be factors that can reduce the effect of stressors on stress. Family functionality ($p < .05$) and hope ($p < .001$) were also shown to reduce the effect of stressors on stress in relatives of people with alcohol problems. **Conclusion:** Coping styles, social support, family functionality and hope are mediating factors in reducing the effect of stressful situations on stress in relatives of people with alcohol problems. Having empirically tested theoretical models will allow the development of nursing interventions to improve family well-being in the future.

Keywords: alcoholism; stress; family; coping; hope; Mexico.

INTRODUCTION

Alcohol consumption is the most widespread addiction problem in the Americas, with severe consequences in the individual, society, and family, contributing to the development of 200 diseases. In addition, it causes serious harm to those around drinkers, including violence, trauma, emotional distress, and economic

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Corresponding author:
Francisco Rafael Guzmán Facundo
E-mail: pako2001@hotmail.com

[1] Universidad Autónoma de Nuevo León, Facultad de Enfermería. Nuevo Leon, Mexico.
[2] Hospital Metropolitano Dr. Bernardo Sepúlveda. Nuevo Leon, Mexico.

instability, particularly affecting women (1). Globally, it is estimated that there are approximately 15.1 million people who drink alcoholic beverages, with men reporting higher consumption rates. In Mexico, national surveys indicate that excessive alcohol consumption among individuals aged 12 to 65 is 19.8%, with 2.9% reporting daily consumption. Globally, 20% of the population has a family member with alcohol consumption problems, while in Mexico, more than 5 million families face this issue (1, 2).

Families with alcoholic individuals experience stressful situations, such as mood swings, disturbance in family interactions, absence from family activities, irresponsibility, and concern for the consumer's health (3, 4). These stressors can lead to psychological symptoms (distress, nervousness, confusion, anger, depression) and somatic symptoms (fatigue, muscle pain, lack of appetite, tachycardia), affecting the health of family members. Evidence indicates that the greater the exposure to these stressors, the more severe the symptoms experienced (5-7), highlighting the need for nursing professionals to address this issue to improve family well-being. Coping strategies can reduce these symptoms (8).

It is crucial that families of alcoholic individuals develop skills to cope with these challenges and have social support networks, as these facilitate coping strategies and help reduce tension and stress. Social support is associated with a state of well-being that mitigates the negative consequences of stressors (9). The Stress-Strain-Coping-Support (SSCS) model aims to explain and understand the experiences and health risks faced by family members of individuals with addictions (10-12).

The SSCS model suggests that having a family member with addiction problems constitutes a stressful way of life that, without proper coping mechanisms, jeopardizes the health of the family. Changes in coping strategies and increased social support can mitigate the effects of stressors and strain. Currently, in Mexico, the model has retained its original structure; however, there is a recognized need to integrate additional concepts —such as hope and family functionality— for a better understanding of the problem. Hope is vital to improve psychological and physical health, while family functionality serves as a protective factor against excessive alcohol consumption (13-15).

Many health systems focus on reducing alcohol consumption, but few programs address the challenges faced by family members of individuals with alcohol consumption problems (16). Having proven theoretical models will enable the development of nursing interventions that enhance family well-being, as nurses are the first contact in healthcare services. It is necessary to identify and understand health risk factors among the family members of alcohol users, and to develop effective strategies to mitigate family distress.

This study aims to analyze the effects of a family member's alcohol consumption, stressors, coping styles, social support, hope, and family functionality on strain symptoms experienced by family members. The following hypotheses are proposed: 1) A family member's alcohol consumption increases stressors in their relatives; 2) Alcohol-related stressors increase strain symptoms in family members; 3) Coping styles and social support protect against strain in family members; and 4) Hope and family functionality also protect against stress in family members.

MATERIALS AND METHODS

Design and participants

The study was predictive with a model-testing design, and it was a cross-sectional approach (17). The population consisted of adults living with a family member who drank alcohol (dependent and harmful consumption) within the metropolitan area of the state of Nuevo Leon, Mexico. A non-probabilistic quota sampling method was used, based on the need to include the specific group of family members and individuals who drink alcohol. This approach is crucial for behavioral and public health studies, as it ensures the inclusion of enough participants from each group. This approach ensured a sample that adequately reflects the diversity within the target population.

The sample was calculated using nQuery Advisor® 7.0 for a multiple linear regression model with six independent variables. A significance level of 0.05, a correlation coefficient of 0.09 (considered a medium effect size), and a power of 85% were established. These parameters resulted in a final sample of 161 participants, consisting of family members and individuals who drink alcohol. To mitigate any possible biases and ensure that the sample was as representative as possible, inclusion and exclusion criteria were defined. Alcohol users had to have dependent and harmful consumption, assessed by the Alcohol Use Disorders Identification Test (AUDIT). Those who reported risky consumption or illicit drug use were excluded. For family members, the inclusion criteria were to be of legal age, to be able to read and write, to give authorization through an informed

consent form, and to live in the same household as the consumer. These measures ensured an adequate selection of participants, allowing us to collect relevant and representative data for the study.

Instruments

Family Member Impact scale (FMI)

Developed by Orford et al. (12) and adapted for the Mexican population (18), this test evaluates the perceived impact of relatives due to alcohol consumption by a family member in the last three months. This self-administering test consists of 10 questions that measure the frequency of the consumer's harmful activities using a Likert scale from 0 to 3 ('never', 'once or twice', 'sometimes', 'frequently'). Total scores range from 0 to 30 and turn into indices from 0 to 100 for statistical analysis, reflecting the global impact with subscales of social-functional impact (6 items) and concern for the family member (4 items). The test demonstrated acceptable internal consistency in the Mexican population with a Cronbach's alpha of 0.83 (18). In this study, even higher reliability was obtained with a Cronbach's alpha of 0.86.

Hopefulness–Hopelessness scale (HOPE) (12)

Adapted for the Mexican population (19), this instrument measures the degree of optimism or pessimism felt by a family member regarding alcohol or drug use within the family environment. This self-administering instrument consists of 10 items, divided into 5 positive and 5 negative items, with a Likert-type measuring scale ranging from "strongly agree" to "strongly disagree". The total score of the questionnaire ranges from 10 to 50, where higher scores indicate greater hope in the family member. For statistical purposes, these scores turned into indices from 0 to 100. In this study, reliability was obtained with a Cronbach's alpha of 0.70.

Assessment Strategies in Families-Effectiveness scale (ASF-E)

Developed by Friedemann (20), and validated for effectiveness in Mexico (21), this self-administered questionnaire consists of 20 items that measure family functioning effectiveness across four dimensions: coherence (C), individuation (I), system change (SC) and system maintenance (SM). The scale categorizes family effectiveness into three levels: low (20-33 points), intermediate (34-47 points) and high (48-60 points). Specific scores for each dimension are also classified into low, intermediate and high levels. For statistical analysis, scores turn into indices from 0 to 100. This instrument demonstrated a reliability of 0.85 in Colombian young people and adults (22). In this study, Cronbach's alpha reliability was 0.74.

Coping Questionnaire (CQ)

Developed by Orford et al. (23) for the English population and adapted for Mexico, this questionnaire evaluates family strategies to deal with substance use over the last three months. It consists of 30 items and is presented in versions differentiated by the consumer's gender. It uses a Likert scale from 0 to 3 and measures three coping styles: engaged, tolerant and withdrawal, with maximum scores of 42, 27 and 24 points, respectively. The total score ranges from 0 to 90, indicating the level of coping. For statistical analysis, scores turn into indices from 0 to 100. This instrument demonstrated acceptable reliability of 0.87 in studies conducted with the Mexican population (24). For this study, it obtained a reliability of 0.70.

Alcohol, Drugs and the Family Social Support Scale (ADF SSS)

Developed by Toner & Velleman (25) and adapted to the Mexican population by López et al. (19), this questionnaire measures the social support received by family members of problematic alcohol consumers. This self-administered instrument, with an internal consistency of 0.85, consists of 19 items and evaluates three dimensions of support: negative, functional positive and formal (documentary and professional). Using a Likert scale from 0 to 3, the questionnaire has a maximum total score of 57 points, with specific minimum and maximum scores for each dimension. The scores turn into an index ranging from 0 to 100 for statistical purposes, reflecting the overall level of social support received. In this study, Cronbach's alpha reliability was 0.80.

Symptom Rating Test (SRT)

Adapted for the Mexican population (26), this scale aims to explore the presence of common psychopathological and somatic traits in the general population over the last three months. This self-administered test consists of 30 items, allowing participants to indicate the frequency with which they have experienced each symptom, with response options of 0 (never), 1 (sometimes) and 2 (often). The score of this scale can be interpreted globally or divided into two dimensions: physical and psychological

symptoms. For statistical analysis, scores are converted into indices ranging from 0 to 100, where a higher score indicates greater symptoms of strain. Cronbach's alpha coefficients of 0.93 have been reported (26), and in this study an adequate internal consistency was obtained with Cronbach's alpha of 0.82.

Alcohol Use Disorders Identification Test (AUDIT)

This test was completed only by the family member who uses alcohol. Developed by Babor et al. (27), this self-administered test, composed of 10 questions, evaluates the type of alcohol consumption and its consequences in individuals who drank alcohol last year. The first three questions determine the amount and frequency of alcohol consumption; the next three assess alcohol dependence; and the remaining questions evaluate harmful or damaging consumption. Responses are scored from 0 to 4, with a total score ranging from 0 to 40, where higher scores indicate a greater risk of consumption and dependence. In this study, Cronbach's alpha of 0.77 was obtained.

Procedures

For data collection, authorization was obtained from the General Directorate of the University Health Center of the Universidad Autónoma de Nuevo León (UANL), as the study was conducted with individuals who came to consultation at the university's health center. The search for study participants was carried out through direct invitations to individuals (patients or companions) who came to these health centers, so they were interviewed when they were in the waiting room or after their consultation, provided that their health condition was ok. The screening question asked was: Do you live with a family member who drinks more than five beers?

Once they accepted the invitation, participants were asked to go to a nursing consultation room, where they were explained the dynamics and procedure for completing the instruments. An informed consent form was read and signed, and then an envelope containing the questionnaires was provided for completion. Data collection for the family member who consumed alcohol was conducted through references from the registration form provided by the participants at the University Health Center. For these cases, an interview was conducted at the participant's residence, where the informed consent form was also explained and signed. This family member was provided with a personal data form, the Family Functionality Assessment Scale and AUDIT for completion. Finally, their collaboration was appreciated.

This study was conducted in strict adherence to the ethical principles established for research involving human beings. Approval was obtained from the Research Ethics Committee of the Faculty of Nursing at UANL under Resolution No. FAEN-D-1552, issued October 17, 2018. This committee reviewed and approved the research protocol, ensuring compliance with applicable international and local ethical standards.

Data analysis

The statistical analysis was conducted using SPSS® version 22 for Windows. Descriptive and inferential statistics were applied. The Lilliefors-corrected Kolmogorov-Smirnov Goodness- Of-Fit test was applied to assess the normality of the study's data distribution. The results indicated the use of nonparametric statistics to answer the research hypotheses. To address the general objective and hypothesis of the study, simple and multiple linear regression models were applied.

RESULTS

In terms of the sociodemographic characteristics of the sample of family members of individuals with alcohol consumption problems, 91.3% were women and 72.0% were between 18 and 49 years old. 55.3% were married, and 55.9% reported not being employed. Regarding their relationship with the person struggling with alcohol consumption, 70.2% mentioned that their partner was the one facing this issue, followed by their father (10.6%), their child (9.3%), their brother (8.0%) and their mother (1.9%). Apart from that, 56.5% reported that their family member drank alcohol twice a week.

Regarding the sociodemographic characteristics of the sample of alcohol users, 93.8% were men, and 46.6% were between 18 and 43 years old. 62.7% were married, and 21.7% were in a common-law relationship. Regarding employment status, 87% reported that they were working at that moment. Regarding the onset of alcohol consumption, 51.6% mentioned that they began drinking between the ages of 15 and 19, and 73.9% indicated that they preferred beer. In terms of consumption pattern, 47.2% reported drinking between 10 and 14 alcoholic beverages per occasion, with a frequency of twice a week (39.8%). The majority (78.9%) primarily drank alcohol at home, and 75.8% reported having experienced alcohol-related accidents.

The most frequent indicators of stressful situations in the family as a consequence of living with an alcohol user included: involvement of people outside the family (39.1%), alcohol interfering with their social life (36.6%), the family member failing to participate in family activities (28.6%), disruption of family interactions (27.3%), and concern for the mental health of the family member (27.3%). The most prevalent stress-related physical symptoms among family members living with an alcohol user were tachycardia (83.9%), irritability (83.2%), weakness (75.8%), sleep problems (74.5%), and body tremor and numbness (70.2%). Among the stress-related psychological symptoms of family members living with an alcohol user, the most common were panic attacks (81.3%), depression (78.9%), worry (76.4%), strain (75.1%), hopelessness (73.3%), and difficulty making decisions (73.3%).

To address the first hypothesis, the results in Table 1 indicate a positive effect of a person's alcohol use on the stressful situations experienced by their family member (β = .173; p = .028) with an explained variance of 30%. In other words, the greater the alcohol consumption of a family member, the higher the probability of stressors arising due to the addictive behavior of the family member. Based on these results, the first hypothesis is accepted, indicating that a family member's alcohol consumption positively affects the presence of stressors in the consumer's relative.

Table 1. Simple linear regression model for the effect of a person's alcohol consumption on the stressful situations experienced by their family member.

Model	Unstandardized coefficients		Standardized coefficients	P-value	95% CI for β	
	β	SE	β		LL	UL
AUDIT	52.24	4.86	.173	.028	42.63	61.85
F = 4.90; R^2 = 30%; p = .028						

AUDIT: Alcohol Use Disorders Identification Test; β: Beta coefficient; SE: standard error; CI: confidence interval; LL: lower limit; UL: upper limit; F: statistic F; p: p-value; R^2: explained variance.

Table 2 shows that the presence of stressful situations or stressors had a positive and significant effect on the stress experienced by family members of individuals with alcohol-related problems (β = .280; p < .001), with an explained variance of 7.3%. These results support the second hypothesis, which states that stressors related to alcohol consumption positively impact the presence of stress in family members of individuals with alcohol consumption problems.

Table 2. Simple linear regression model for stressors and tension variables.

Model	Unstandardized coefficients		Coefficients standardized	P-value	95% CI for β	
	β	SE	β		LL	UL
Stressors	.170	.046	.280	.001	.079	.262
F = 13.507; R^2 = 7.3%; p = .001						

β: beta coefficient; SE: standard error; CI: confidence interval; LL: lower limit; UL: upper limit; F: statistic F; p: p-value; R^2: explained variance.

Table 3 presents the regression results, highlighting that the model was significant with an explained variance of 13.1%. It was observed that the variables affecting tension in the family member were stressors (β = .207; p = .011), the engaged coping style (β = –.161; p = .033) and social support (β = –.159; p = .050), with the last two showing a significant negative effect on the presence of tension. With these results, the third hypothesis is confirmed, indicating that the coping styles and social support of the family member have a protective effect on alcohol consumption-related tension in the family member.

Table 3. Multiple linear regression model of coping and social support variables on the presence of tension.

Model	Unstandardized coefficients		Standardized coefficients	P-value	95% CI for β	
	β	SE	β		LL	UL
Stressors	.126	.049	.207	.011	.029	.223
Committed coping	–.140	.065	–.161	.033	–.269	–.011
Social support	–.184	.056	–.159	.050	–.235	.001
F = 7.86; R^2 = 13.1%; p< .001						

β: beta coefficient; SE: standard error; CI: confidence interval; LL: lower limit; UL: upper limit; F: statistic F; p: p-value; R^2: explained variance.

According to Table 4, the model was significant, with an explained variance of 20%. At the same time, it was observed that the variables that had an effect on the tension experienced by the family were stressors (β = .209; p = .006), maintenance of the family functionality system (β = .234; p = .008), system change in family functioning (β = –.194; p = .025) and hope (β = –.265; p = .001). With these results, it can be concluded that greater hope regarding alcohol consumption and higher family functionality are associated with a lower presence of tension symptoms in the family member; In addition, the fourth hypothesis is confirmed, indicating that hope and family functionality have a protective effect against tension due to alcohol consumption by the family member.

Table 4. Multiple linear regression model of the 'hope' and 'family functionality' variables on the presence of tension.

Model	Unstandardized coefficients		Standardized coefficients	P-value	95% CI for β	
	β	SE	β		LL	UL
Stressors	.127	.046	.209	.006	.036	.218
System Change (FF)	–.125	.055	–.194	.025	–.234	–.016
System maintenance (FF)	.184	.068	.234	.008	.049	.319
Hope	.185	.051	.265	.001	.084	.286
F = 9.38; R^2 = 19.4%; p< .001						

β: beta coefficient; SE: standard error; CI: confidence interval; LL: lower limit; UL: upper limit; F: statistic F; p: p-value; R^2: explained variance; FF: family functionality.

Finally, Figure 1 presents the graphical representation of the explanatory model of stress symptoms in family members of individuals with alcohol consumption problems. It illustrates the effect of a person's alcohol consumption on stressors and tension symptoms in the family member of the alcohol user. Apart from that, it depicts the mediating effect of coping styles, social support, hope, and family functioning to reduce the impact of stressors on tension symptoms in relatives of individuals with alcohol consumption problems.

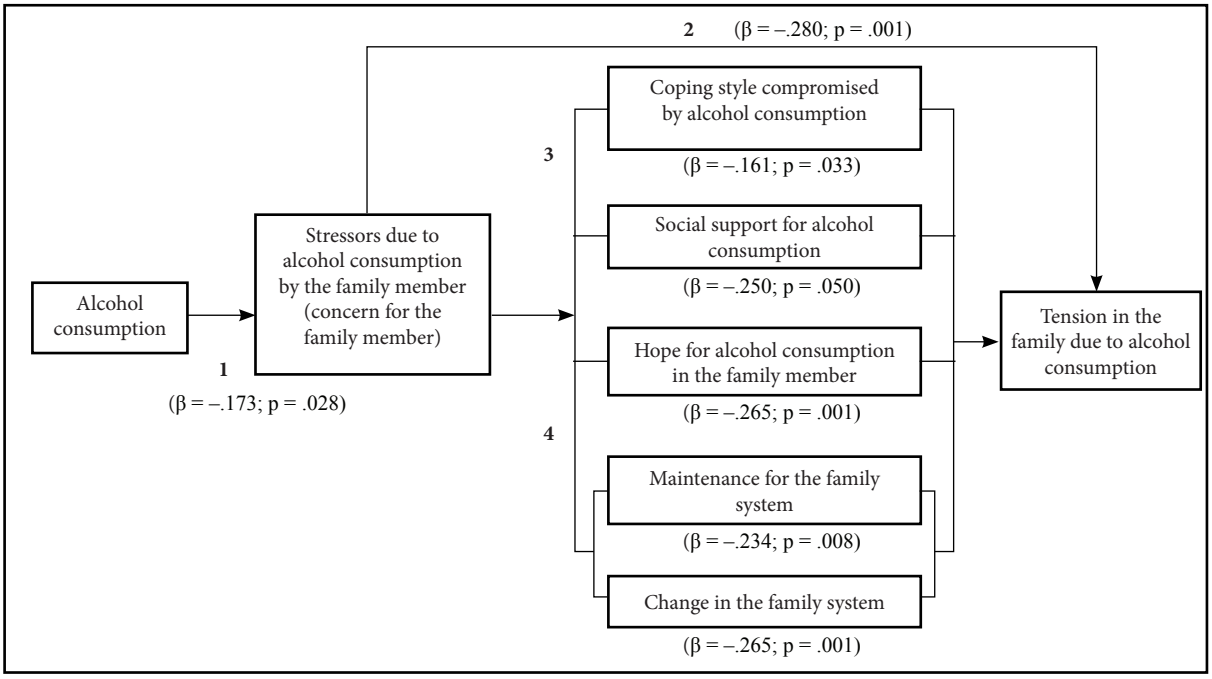

Figure 1. Explanatory model of strain in relatives of individuals with alcohol consumption problems.

DISCUSSION

The results of this study provide a robust explanatory model of stress symptoms in relatives of individuals with alcohol consumption problems, highlighting the complexity and multidimensionality of this phenomenon. This model not only expands our understanding of the factors that contribute to stress and tension in this group, but also highlights the importance of various psychological, social and contextual variables.

Based on the findings, it was observed that higher alcohol consumption by a family member increases stressors in the family. These results, consistent with previous research studies (9, 10, 28), confirm that family members of individuals with alcohol consumption problems experience significant levels of stressors. Living with a family member in this situation generates uncertainty, emotional chaos, and constant dilemmas that adversely affect the physical and psychological health of family members. This impact is exacerbated by violence, disharmony, conflicts and the breakdown of family relationships, associated with excessive alcohol consumption. These situations cause significant distress in family members, exacerbating complex issues such as high levels of stress and tense relationships (11, 12).

In line with the second hypothesis, it was confirmed that the presence of stressful situations has a positive and significant effect on tension in the relatives of individuals with alcohol consumption problems. Literature consistently supports these findings (4, 6, 9, 10). The presence of stressful situations is a key factor in the onset of tension symptoms, which are considered a mental health issue that causes maladaptive social behaviors and prolonged distress in the individual. Both physical and psychological health can be affected by disruptive situations or perceived threats in life.

Living with an excessive alcohol user has particularly significant implications for the physical and psychological health of the family due to the addictive behavior that triggers a series of negative reactions in their environment. Families of alcohol users represent a significant group worldwide, exposed to a high risk of developing physical or mental conditions such as anxiety, depression, hopelessness, and fear. Apart from that, they experience negative feelings toward the alcohol-consuming family member, such as anger and resentment, as well as toward themselves, including guilt, loss of confidence and self-esteem (7, 10, 24). These findings highlight the need for comprehensive interventions that not only address alcohol consumption, but also provide support to affected family members, promoting a healthier and more balanced environment for all the family.

The results indicate that the coping styles and social support of the family have a protective effect against the stress caused by the alcohol consumption of the family member, which is consistent with those described in the SSCS model (10-12). Particularly, in the study population, participants reported a greater

use of committed coping to seek a change in the person who drinks alcohol. This means that they take actions that include active attempts to control or reduce alcohol consumption, which may be emotional, assertive, or controlling to regain control over their family member, either threatening, caring for or talking to the person to stop drinking. This type of coping style was the most commonly used in different contexts to help improve the well-being of the family member and reduce the presence of tension symptoms (10, 11, 22).

On the other hand, social support is an effective way to cope with family issues related to alcohol consumption. Specifically, social support has the ability to help families cope with problems and serves as a buffer element against negative experiences that produce tension and stress symptoms in the family member. Individuals with a reliable support network are more likely to seek professional help (formal support) to face their problems and achieve a reduction in their distress (7, 9, 23). Specifically, in the study population, having adequate and easily accessible social support allows the family of alcohol users to reduce their tension symptoms, as it provides them with greater protection during family difficulties and helps them prevent health conditions.

Finally, the results indicate that greater hope in the recovery from alcohol consumption and higher family functionality are associated with a lower probability of experiencing tension symptoms among family members. These findings confirm that these concepts can contribute to the explanation of the SCCS model in the Mexican population (22). In addition, these results are consistent with previous studies on hope and family functionality (13-15).

In this regard, hope is a factor that exerts a significant influence on the elimination or reduction of physical and psychological problems before they occur. In addition, it enables individuals to develop a greater capacity or adaptive ability to solve their problems, thereby promoting mental and physical health. In the study participants, hope acts as a crucial mediator, generating positive emotions and increasing the family member's motivation toward their own life. This enhances their emotional well-being and supports their health while facing the issue of alcohol consumption within their family. A positive mindset, despite negative situations, shifts the perspective on the problem by believing in a favorable change in the family member with addiction. This positive belief can encourage the adoption of preventive measures that benefit their health (13).

Regarding the effect of family functionality, the results may be attributed to a moderate perception of family functionality among participants. This perception may be influenced by the interference that consumption-related problems cause within the family. The family system often focuses the problem of the consumer, with collective actions focused on finding solutions and committing to reducing the addictive behavior of the affected member. An effective control within the family system, which regulates and reduces external threats (such as alcohol consumption) through the use of internal mechanisms (such as coping styles, social support, hope, etc.), can help reduce vulnerability and protect the system from threats, thus restoring congruence in the family environment (29). These results support the principles of the SSCS model, as well as the concepts of hope and family functionality included in this study.

The main limitations of the study include a potentially non-representative sample size, the impossibility to establish causality due to the cross-sectional design, the risk of self-report bias, and the lack of specific details regarding alcohol consumption. These restrictions should be considered to enhance the accuracy of future research.

Based on the results, it is recommended to develop programs to support families of individuals with alcohol consumption problems, including positive thinking techniques to foster hope, therapies to improve communication and conflict resolution, and emotional support through individual and group therapy. It is also essential to train family members in effective coping strategies and promote community nursing policies that address alcohol consumption and its effects on the family. Future research should assess the effectiveness of these intervention programs and how various coping strategies can be optimized to improve mental health and stress management in the family.

CONCLUSIONS

The explanatory model of stress for the family of individuals with alcohol consumption problems, derived from the propositions and concepts of the SSCS model and the reviewed literature on hope and family functionality, demonstrated that coping styles, social support, family functionality and hope act as mediating factors in reducing the impact of stressful situations on stress levels in the family of individuals with alcohol-related issues.

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Authorship contribution:

FRGF: conceptualization, formal analysis, research, methodology, validation, visualization, writing of original draft, writing - review & editing.

RAQD: data curation, research, validation, formal analysis.

JSCA: research, project administration, validation, writing of original draft, writing - review & editing.

KDLG: formal analysis, research, validation, writing of original draft.

REFERENCES

1. World Health Organization. Alcohol [Internet]. WHO: 2024, June 28. Available from: http://www.who.int/es/news-room/fact-sheets/detail/alcohol
2. Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz; Instituto Nacional de Salud Pública; Comisión Nacional Contra las Adicciones; Secretaría de Salud (ME). Encuesta Nacional de Consumo de Drogas, Alcohol y Tabaco 2016-2017: Reporte de Alcohol [Internet]. Mexico City: INPRFM; 2017. Available from: https://drive.google.com/file/d/1rMlKaWy34GR51sEnBK2-u2q_BDK9LA0e/view
3. Alexanderson K, Näsman E. Children's experiences of the role of the other parent when one parent has addiction problems. Drugs Educ Prev Policy [Internet]. 2017; 24(1): 32-39. Available from: https://doi.org/10.1080/09687637.2016.1218824
4. Richert T, Johnson B, Svensson B. Being a parent to an adult child with drug problems: negative impacts on life situation, health, and emotions. J Fam Issues [Internet]. 2018; 39(8): 2311-2335. Available from: https://doi.org/10.1177/0192513X17748695
5. Bustamante RF, Quintana A. [Parental control of parents who are consumers and non-consumers of alcohol from the perception of their daughters]. PsiqueMag [Internet]. 2016; 4(1): 88-100. Available from: http://revistas.ucv.edu.pe/index.php/psiquemag/article/view/117 Spanish.
6. Wilson SR, Lubman DI, Rodda S, Manning V, Yap MB. The personal impacts of having a partner with problematic alcohol or other drug use: descriptions from online counselling sessions. Addict Res Theory [Internet]. 2018; 26(4): 315-322. Available from: https://doi.org/10.1080/16066359.2017.1374375
7. Orford J. How does the common core to the harm experienced by affected family members vary by relationship, social and cultural factors? Drugs Educ Prev Policy [Internet]. 2017; 24(1): 9-16. Available from: https://doi.org/10.1080/09687637.2016.1189876
8. Sell M, Magor-Blatch LE. Assessment of coping in Al-Anon attending family members of problem drinking relatives. J Groups Addict Recover [Internet]. 2016; 11(3): 205-219. Available from: https://doi.org/10.1080/1556035X.2016.1197808
9. Orford J, Padin MF, Canfield M, Sakiyama HM, Laranjeira R, Mitsuhiro SS. The burden experienced by Brazilian family members affected by their relatives' alcohol or drug misuse. Drugs Educ Prev Policy [Internet]. 2019; 26(2): 157-165. Available from: https://doi.org/10.1080/09687637.2017.1393500
10. Orford J, Copello A, Velleman R, Templeton L. Family members affected by a close relative's addiction: The stress-strain-coping-support model. Drugs Educ Prev Policy [Internet]. 2010; 17(1): 36-43. Available from: https://doi.org/10.3109/09687637.2010.514801
11. Natera G, Medina PS, Callejas F, Orford J, Salinas G, Tiburcio M. [Cost-effectiveness of a brief intervention to support indigenous women in Hidalgo (Mexico) who live with alcohol abusers]. Rev Panam Salud Pública [Internet]. 2016; 39(2): 69-75. Available from: https://iris.paho.org/handle/10665.2/28217 Spanish.
12. Orford J, Templeton L, Velleman R, Copello A. Family members of relatives with alcohol, drug and gambling problems: a set of standardized questionnaires for assessing stress, coping and strain. Addiction [Internet]. 2005; 100(11): 1611-1624. Available from: https://doi.org/10.1111/j.1360-0443.2005.01178.x

13. Snyder CR. Hope theory: Rainbows in the mind. Psychol Inq [Internet]. 2002; 13(4): 249-275. Available from: https://doi.org/10.1207/S15327965PLI1304_01

14. Friedemann ML. The framework of systemic organization: a conceptual approach to families and nursing. Thousand Oaks: Sage Publications; 1995.

15. Alonso-Castillo MM, Yañez-Lozano Á, Armendáriz-García NA. [Family functionality and alcohol use among high school teenagers]. Health and Addictions [Internet]. 2017; 17(1): 87-96. Available from: https://www.redalyc.org/articulo.oa?id=83949782009 Spanish.

16. Greenfield TK, Ye Y, Kerr W, Bond J, Rehm J, Giesbrecht N. Externalities from alcohol consumption in the 2005 US National Alcohol Survey: implications for policy. Int J Environ Res Public Health [Internet]. 2009; 6(12): 3205-3224. Available from: https://doi.org/10.3390/ijerph6123205

17. Burns N, Grove SK. The Practice of Nursing Research: Appraisal, Synthesis and Generation of Evidence. 6.ª ed. Missouri: Saunders; 2009.

18. López A, Natera G, Tiburcio M, Mondragón R. [Exploratory analysis of the Substance Use Disorder Family Impact Questionnaire in Mexico]. Informes Psicol [Internet]. 2023; 23(1): 239-254. Available from: https://doi.org/10.18566/infpsic.v23n1a15 Spanish.

19. López A, Natera G, Barragan L, Martínez A, Tiburcio MA, Carrazcosa C. Propiedades psicométricas de tres escalas para familiares de usuarios de drogas: apoyo social, esperanza-desesperanza e impacto del consumo [master's thesis]. Mexico City: Universidad Nacional Autónoma de México.

20. Friedemann ML. An instrument to evaluate effectiveness in family functioning. West J Nurs Res [Internet]. 1991; 13(2): 220-241. Available from: https://doi.org/10.1177/019394599101300205

21. Chávez-Aguilera ML, Friedemann ML, Alcorta A. Evaluación de la escala de efectividad en el funcionamiento familiar. Desarrollo Científ Enferm. 2000; 8(1): 12-18.

22. Gómez E, Castillo I, Días CE, Luis A, Cogollo Z. [Validity and reliability of the spanish version of the rating scale of family functionality (ASF-E-20)]. Av Enferm [Internet]. 2013; 31(2): 21-29. Available from: http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0121-45002013000200003 Spanish.

23. Orford J, Natera G, Davies J, Nava A, Mora J, Rigby K, et al. Tolerate, engage or withdraw: a study of the structure of families coping with alcohol and drug problems in South West England and Mexico City. Addiction [Internet]. 1998; 93(12): 1799-1813. Available from: https://doi.org/10.1046/j.1360-0443.1998.931217996.x

24. Natera G, Tiburcio M. Tailoring an intervention model to help indigenous families cope with excessive drinking in central Mexico. Salud Mental [Internet]. 2007; 30(6): 32-42. Available from: https://www.medigraphic.com/pdfs/salmen/sam-2007/sam076e.pdf

25. Toner P, Velleman R. Initial reliability and validity of a new measure of perceived social support for family members of problem substance users. Addict Res Theory [Internet]. 2013; 22(2): 147-157. Available from: https://doi.org/10.3109/16066359.2013.779675

26. Mora J, Natera G. Andrade-Palos P. Escala de Síntomas «Symptom Rating Scale» (STR) en estudiantes mexicanos de nivel medio superior. Salud Mental. 1994; 17(3): 15-23.

27. Babor TF, Higgins-Biddle JC, Saunders JB, Monteiro MG. AUDIT: Cuestionario de Identificación de los Transtornos debidos al Consumo de Alcohol. Pautas para su utilización en Atención Primaria [Internet]. Geneva: Generalitat Valencia; Organización Mundial de la Salud; 2001. Available from: https://www.uclaisap.org/slides/psattc/Spanish-SBIRT/7_AUDITmanualSpanish.pdf

28. Natera G, Tiburcio M, Mora J. Ayuda para familiares de consumidores de alcohol y drogas [Internet]. Instituto Nacional de Psiquiatría Ramón de la Fuente; 2016. Available from: http://www.familiayadicciones.org.mx

29. Perdomo AY, Ramírez CA, Galán EF. [Association of family functionality parent-adolescent in Neiva]. Av Enferm [Internet]. 2015; 33(1): 94-103. Available from: https://doi.org/10.15446/av.enferm.v33n1.40105 Spanish.