

2021

## Financial Anxiety Among Caregiving Parents of Adult Children with a Substance Use Disorder

Rachel R. Tambling  
*University of Connecticut*

Carissa D'Aniello  
*Texas Tech*

Beth Russell  
*University of Connecticut*

Follow this and additional works at: <https://newprairiepress.org/jft>



Part of the [Business Commons](#), [Counseling Psychology Commons](#), [Family, Life Course, and Society Commons](#), [Social Psychology Commons](#), and the [Social Work Commons](#)



This work is licensed under a [Creative Commons Attribution-Noncommercial 4.0 License](#)

### Recommended Citation

Tambling, R. R., D'Aniello, C., & Russell, B. (2021). Financial Anxiety Among Caregiving Parents of Adult Children with a Substance Use Disorder. *Journal of Financial Therapy*, 12 (1) 5. <https://doi.org/10.4148/1944-9771.1255>

This Article is brought to you for free and open access by New Prairie Press. It has been accepted for inclusion in Journal of Financial Therapy by an authorized administrator of New Prairie Press. For more information, please contact [cads@k-state.edu](mailto:cads@k-state.edu).

# Financial Anxiety Among Caregiving Parents of Adult Children with a Substance Use Disorder

Rachel R. Tambling, Ph.D.  
*University of Connecticut*

Carissa D'Aniello, Ph.D.  
*Texas Tech University*

Beth Russell, Ph.D.  
*University of Connecticut*

*Substance use is a growing concern in the United States, with widespread harms including substantial costs to individuals, families, and societies; poor outcomes for the substance user; and deleterious impacts on the family and community. When a young adult develops a substance use disorder, a parent or other loved one often assumes a caregiving role and experiences burdens associated with this role. Among these burdens are the impacts on emotional well-being and financial stability. The present study examined experiences of financial anxiety in a sample (n = 172) of caregivers of adults with a substance use disorder recruited from online and in-person treatment support groups. Regression analyses results indicated that caregivers who experienced depression and multiple substance use treatment attempts by their loved one not financially covered by insurance contributed to reports of financial anxiety. Implications for families, family counselors, financial counselors, and substance use disorder treatment payers are discussed.*

*Keywords: Behavioral health; family finance; family studies; financial anxiety; healthcare; substance use disorders*

## INTRODUCTION

Substance use is a concerning problem, as the effects of the widespread harms of substance use are felt by individuals, couples, and families across the United States. One such harm is the financial anxiety resulting from efforts to manage and treat substance use disorders. Substance use disorders (SUDs) threaten public health and result in substantial costs, including poor outcomes for the substance user and deleterious impacts on the family and community.

When an adult develops a SUD, a parent or other loved one often assumes a caregiving role and experiences burdens associated with this role. These burdens include impacts on health, emotional well-being, and financial stability (Kaur et al., 2018). In this study, a caregiver is defined as one who provides care in a parent-like role, generationally distinct from the loved one for whom they provide care. Caregivers provide emotional and instrumental support to substance-using adult loved ones and experience personal distress due to their loved one's substance use (D'Aniello et al., n.d.). As a result of providing intense caregiving in ways that are off time developmentally (i.e. outside of the normal time range for childhood), caregivers experience role strain. This role strain includes financial difficulty and mental health concerns (D'Aniello et al., n.d.; Kaur et al., 2018) which warrants study apart from examinations of the diagnosed family member.

In particular, parents report financial anxiety due to their child's substance use, which includes stress associated with the costs of obtaining suitable SUD treatment (D'Aniello et al., 2021). The present study addresses a dearth of literature regarding the factors associated with financial anxiety among caregivers of young adults who use substances. Using data obtained from an online survey of caregivers of young adults with a SUD, the researchers sought to examine factors associated with financial anxiety, including personal and caregiving characteristics. By exploring factors that contribute to financial anxiety among caregiving parents, the researchers hope to expand treatment providers' knowledge of how the financial aspect of caregiving burden manifests for caregivers of young adults who use substances.

## **LITERATURE REVIEW**

Substance use disorders (SUDs) are increasing in prevalence and are influenced by a complex set of factors, including biological, genetic, familial, social, and environmental factors. The harms of SUDs are many, and the deleterious outcomes of young adult substance use are well documented by researchers. In particular, the death toll of SUDs is climbing. Sharp increases in substance use have been observed among young adults ages 18 to 25 in both urban and suburban areas of the United States (NIDA, 2018). The widespread increase in deadly opioid overdoses has prompted government officials to declare that the country is in an opioid crisis. (NIDA, 2018). In 2017 alone, the opioid crisis was responsible for 47,600 deaths (NIDA, 2018).

The steep and deadly increases in SUDs are also costly. Annually, SUDs cost American society more than \$740 billion (NIDA, 2020). As a chronic relapsing condition, SUDs require multiple treatment attempts to maintain recovery for the long term (Shumway et al., 2019) and to live in recovery successfully.

According to the Substance Abuse and Mental Health Services Administration (SAMHSA, 2020) more than 20 million Americans aged 12 or older had a substance use disorder (SUD) in 2018. This class of mental health disorders is characterized by recurrent substance use and the associated impairments spanning health problems, disability, and failure to meet major responsibilities at work, school, or home (American Psychiatric Association, 2013). SUD diagnostic criteria include taking larger amounts of the substance;

wanting to cut down without success; spending a great deal of time using or recovering from use; experiencing cravings and urges; neglecting school, home, and work responsibilities; relational problems; legal or social consequences; and withdrawal symptoms (American Psychiatric Association, 2013).

Many adults with diagnosed SUDs report their onset of use during late adolescence and early adulthood (Kessler et al., 2005). Indeed, the prevalence of clinically significant substance use (i.e., diagnosable by a behavioral health professional) peaks between ages 18 and 23; with a median age of onset for SUDs between 19 and 20 (SAMHSA, 2017). Nearly one in four emerging adults reports having used an illicit drug in the past 30 days (Andrews & Westling, 2016; Harford et al., 2005; Johnston et al., 2019; SAMHSA, 2017). Given this typical timeframe and onset, SUDs are likely to delay the culturally normative process of emotional and financial launching from one's parents (Kaur et al., 2018), leaving parents responsible for the substantial costs associated with substance use treatment among young adults.

## Theory

Parental caregivers experience the stress of meeting the financial burdens associated with caretaking a young adult child with a SUD (e.g., worry about providing food, shelter, and other necessary expenses), but experience distress associated with the high cost of quality SUD treatment (D'Aniello et al., 2021). Lazarus and Folkman's (1984) theory of stress and coping established that the positive or negative impacts an individual may experience when facing a particular stressor are driven by individuals' appraisal of the situation – their view on the impacts of affording treatment for their loved one, in this case. It is not just exposure to stressors, like financial demands, that create adverse mental health outcomes for caregivers, but the context-dependent judgments about the circumstance and its consequences also shape stress reactions (Epel et al., 2018). One way in which caregivers provide support to loved ones is through financial support. The costs of substance use treatment can be substantial and a source of financial anxiety. Through a transactional lens for stress and coping, then, families contending with the stresses of a loved one's SUD experience a significant stressor in the cost and scarcity of treatment options. The subjective decisions families make to navigate those challenges are colored by the social attitudes that stigmatize both their loved one with the diagnosis and their role as a caregiver. The theory posits that these intersect to shape subsequent coping responses – for better or worse.

## Costs of Substance Use Treatment

Despite the prevalence of SUDs, many individuals remain untreated (Grant et al., 2016). The Substance Abuse and Mental Health Services Administration (SAMHSA, 2017) estimates that approximately 11% of individuals in need of SUD treatment receive it. Worse, nearly 30% of individuals report receiving only “minimally adequate” treatment in scope and breadth (CBHSQ, 2015). While there are significant barriers to treatment-seeking for SUDs, among the most prevalent are financial barriers (Buck, 2011). Treatment costs vary wildly and may include hospital costs in addition to inpatient, outpatient, or other forms of treatment. For individuals without insurance, the concern about treatment cost is the most significant barrier to treatment-seeking (Ali et al., 2015).

Insurance coverage for mental health and SUD services plays a role in treatment initiation and completion, given the substantial cost of treatment. Having personal health insurance that provides coverage for SUD treatment is an important promotive factor in treatment-seeking (Cook & Alegría, 2011; Lundgren et al., 2005; Pinedo, 2019). Receipt of SUD treatment is generally lowest among those that are un- or under-insured. National probability data (Mark et al., 2015) suggest that 4% of individuals with current Medicaid insurance have sought substance use treatment, and rates are even lower for uninsured individuals. Others have suggested utilization rates for substance use treatment services are lowest among the uninsured, with only about 1.6% of individuals initiating treatment for a substance use disorder within the previous year (Wu et al., 2003). Data from the National Survey of Drug Use and Health, an annual, nationally representative, cross-sectional survey, indicates that not only are many individuals un- or under-insured, but many lack awareness of coverage for substance use or mental health treatment under their plan (Cummings et al., 2014). Data indicated that approximately 30% of individuals with a SUD were uninsured, and nearly half of individuals privately insured did not know whether their plan provided coverage for SUD treatment (Cummings et al., 2014). For those who enter treatment, as many as one-fourth reported that they believed that they did not get as much treatment as they would have liked (Merrick et al., 2012). Taken together, it is clear that there is a complex relationship between insurance coverage, treatment entry, and the financial burden associated with treatment. This complex relationship is exacerbated by the complexity of the health care and insurance systems in the United States. There are innumerable health insurance plans, and all cover different things at different amounts. The system is complex and is often difficult for consumers to navigate (Consumers Union, 2012). This systemic complexity is conceptualized as an additional barrier to receiving timely and adequate care.

While it is clear that having personal health insurance influences individual treatment entry and persistence, a nationally representative study suggests that of out-of-pocket expenditures for substance use and mental health treatment are few. Research (Hodgkin et al., 2009) suggests that members of an average commercial plan face substantial out-of-pocket costs for substance use or mental health treatment. In an examination of nationally representative private health plans, they found that individuals paid a median of \$2,710 for 50 mental health visits or \$2,400 for 50 SUD visits, a substantial cost for most families. This financial burden often falls to caregivers, most often parents, of young adult substance users.

### **Parental Caregiving and Financial Responsibility**

When an individual develops a SUD, a family member or parent typically assumes a caregiving role and experiences burdens associated with this role (Kaur et al., 2018). A primary aspect of caregiving may involve identifying treatment options, facilitating entrance to treatment programs, and financially supporting treatment attempts or independent living. Research has shown that caregivers are crucial facilitators of care of chronic relapsing conditions and provide pragmatic and emotional support to individuals they care for. Therefore, they warrant attention as a population of study in their own right (Russell & Guite, 2020). Parents experience adverse outcomes when they have a child with a SUD (Butler & Bauld, 2005; Levine, 1985; Saatcioglu et al., 2006). Substance use often reaches a peak during

young adulthood: It interferes with critical developmental tasks characteristic of this life stage (Murphy & Dennhardt, 2016), including emotionally and financially separating from one's parents. As emerging adults gain independence, they often remain emotionally and financially connected to their parents, and parents often assume some financial burden for caretaking adult children. In families with a child who uses substances, parents report higher health care costs than family members without SUDs present (Ray et al., 2007; Weisner et al., 2010) and may perceive a burden associated with this stressor. The financial toll of caring for a child with a SUD can have more significant impacts than purely economic costs for families, posing the additional threat of a deleterious impact on parents' health and well-being.

Financial anxiety associated with familial caregiving has deleterious and potentially bidirectional impacts on mental health. Research suggests that financial strain is associated with depression and anxiety symptoms (Dijkstra-Kersten et al., 2015; Viseu et al., 2018) and is a special case of anxiety-related symptoms (Summers & Gutierrez, 2018). Others have found that the presence of anxiety symptoms leads to potentially harmful financial decision making, resulting in a circular increase in anxiety (Sages et al., 2013). Medical debt and health care costs, in particular, are associated with symptoms of depression and anxiety among older adults (Marshall et al., 2020). It is clear that people in the United States worry about healthcare costs and engage in cost-related non-adherence to medical and behavioral health protocol (Jones et al., 2019). Some research suggests that health care costs, specifically, can prompt financial anxiety even when controlling for socioeconomic factors (Grable et al., 2014), suggesting that even those with more financial assets are troubled by health care costs. For caregivers, financial anxiety is associated with anxiety symptoms (Santos et al., 2016) and other adverse behavioral health outcomes (Sharp et al., 2013).

In a novel approach to understanding financial anxiety associated with SUDs, Karriker-Jaffe and colleagues (2018) examined the mental health burden of financial anxiety due to a loved one's SUD. They found that financial anxiety negatively impacted mental health outcomes. Further, in a qualitative study, D'Aniello and colleagues found that mothers of young adults with substance use disorders reported significant disruption in their own lives, including perceived financial distress associated with caring for their substance-using children. Mothers in this study (D'Aniello et al., n.d.) reported feelings of stress, anger, and resentment toward their children. Some reported feelings of guilt regarding the financial burden of treatment and actions associated with managing their perceptions of financial insecurity. Inquiry into informal literature suggests that paying for substance use treatment is a concern, as evidenced by the presence of payment information on substance use facilities' websites. Further, many prominent organizations have information about financial aspects of treatment displayed (e.g., Partnership to End Addiction, 2020) on FAQ or informational pages. Caregiving parents can struggle with financial anxiety associated with caring for a child with a SUD. Yet, little attention has been paid by researchers in the research literature to understanding the scope of this burden and factors associated with financial anxiety. Researchers in the present study sought to address this gap in the literature by being among the first to study the caregiver burden experienced by caregivers supporting a child through SUD recovery. We sought to pay particular care to articulate not just the presence of economic strains but also the associated stress and financial anxiety that results.

Obtaining treatment for SUD comes at substantial costs. The burden for paying these costs often falls to family members of young adults with a SUD. Preliminary evidence suggests that parents worry about treatment costs and report stress about locating resources to pay for treatment. Despite this, little is known about the factors contributing to financial anxiety among parents of young adults who use substances. Researchers in the present study sought to gather data regarding the financial anxiety of parents of young adult substance users and the factors that contribute to that stress. The research questions that guided this inquiry were:

1. What treatment factors are associated with financial anxiety?
2. What personal factors are associated with financial anxiety?

## **METHOD**

We conducted an exploratory analysis of the factors associated with financial anxiety for caregivers of young adults with SUDs. The number of treatment attempts, treatment type, insurance coverage, and caregiver burden were examined. We examined factors that predict caregiving burden, anxiety, and depression in caregivers of young adults with SUDs using multiple regression. Depression and anxiety were used in this model because they are prevalent mental health conditions that arise or intensify in response to a stressful event or circumstance. Depression and anxiety can range from mild to severe depending on the intensity of the stressor, as well as the amount of time in which the stressor persists.

### **Sampling and Recruitment Procedures**

The desired sample for the present study were adults (over age 18) who self-identify as a caregiver to a young adult (between approximately age 18 and 30) with a clinically significant SUD. Since we asked many questions about treatment experiences, we screened participants to ensure that their SUD loved one had sought treatment of some type at least once. Participants reported their biological and familial relationship with their SUD loved one.

We used purposive sampling techniques to obtain the present sample. We used non-probability sampling to select subjects based on the study purpose (Suen et al., 2014). To obtain our purposive sample, we began by considering places of connection and support where caregivers of loved ones with SUDs would gather. Online support forums serve the purpose of offering a virtual place for caregivers to gather, receive resources and support from others in similar circumstances. Caregivers of a loved one with a significant and diagnosable SUD would be the most likely to seek support through such an online forum if they were experiencing distress.

After conducting a thorough internet search of major online support forums for caregivers of individuals with SUDs, we identified 11 prominent online forums that serviced our study population. We contacted the administrators of each forum to ask permission to post recruitment documents for this study in their online forums. Two forum administrators responded that they do not post research recruitment documents due to privacy

considerations, and six forum administrators did not respond to our inquiry. Four forums responded affirmatively. Further, we recruited participants from a local SUD treatment facility.

The recruitment document contained the link to the online survey administered with Qualtrics. The first page of the survey included the informed consent form. Participants were required to check a box indicating their consent to participate before survey questions were shown to the participant. Once the participant provided their consent to participate, they began responding to screening questions which asked whether their SUD loved one had sought treatment for their SUD at least once. If participants responded that their SUD loved one had not sought treatment, their participation ended. Initial demographic questions were posed first, including age, ethnicity, gender, education, and recruitment site. The majority of participants were recruited through national online forums related to coping with a child or a loved one's SUD: *Forum 1* ( $n = 37, 25\%$ ), *Forum 2* ( $n = 59, 40\%$ ), and *Forum 3* ( $n = 17, 10\%$ ). Twenty percent ( $n = 36, 24\%$ ) of our sample was collected from the local treatment site with whom the researchers have a partnership.

## Participants

All participants ( $N=172$ ) reported that their loved one had sought some type of treatment for their SUD. Table 1 provides information about the demographic characteristics of the sample in a visual format. Participants ranged in age from 33 to 78 ( $M = 51.7, SD = 8.5$ ). The sample was 66% ( $n = 113$ ) women and 34% ( $n = 59$ ) men. Participants were 13% ( $n = 22$ ) Latinx, 7% Black ( $n = 12$ ), 8% ( $n = 13$ ) mixed race, 2% ( $n = 4$ ) American Indian/Alaska Native, 2% ( $n = 3$ ) Asian, 2% ( $n = 3$ ) Native Hawaiian/Pacific Islander, and 72% White ( $n = 123$ ). Participants identified their relationship to their SUD loved one. Over half of the participants ( $n = 100, 59\%$ ) were married at the time of this survey. Thirty-two participants (19%) were divorced. Nineteen participants (11%) were in a committed relationship at the time of the study. One hundred and thirty-six participants (80%) identified themselves as a biological parent to a child with a SUD, while 11 participants (6%) identified as the stepparent, and six participants (4%) were adoptive parents. Ten participants (6%) identified as the aunt or uncle to a SUD loved one. Forty-four percent of participants ( $n = 29$ ) had attended some college, while 29% of participants ( $n = 49$ ) held a bachelor's degree and 17% held an advanced degree (Master's, Doctoral Degree, or professional degree).



**Table 1.**

*Demographic Variables*

Variable	Level	N	Percent
<b>Participant Demographics</b>			
Gender	Men	59	34%
	Women	113	66%
Ethnicity	White	123	72%
	Black	12	7%
	Latinx	22	13%
	Mixed Race	13	8%
	American Indian/Alaskan Native	3	2%
	Native Hawaiian/Pacific Islander	3	2%
Relationship Status	Married	100	59%
	Divorced	32	19%
	Committed relationship	19	11%
Relationship to SUD loved one	Biological parent	136	80%
	Stepparent	11	6%
	Adoptive parents	6	4%
	Aunt or uncle	10	6%
Education	Some college	29	44%
	Bachelor's degree	49	29%
	Advanced degree (Master's, doctoral or professional degree)	29	17%
<b>SUD loved ones of caregiver participants</b>			
Substance of choice	Heroin or opioids	67	39%
	Marijuana	30	18%
	Alcohol	23	14%
	Cocaine	19	11%
	Hallucinogens or benzodiazepines	17	9%
Treatment Type	Outpatient therapy	59	34%
	Inpatient treatment	102	59%
	Intensive outpatient program	91	53%
	Alcoholics or Narcotics Anonymous	109	63%
Number of treatment attempts	One attempt	14	8%
	Two attempts	23	13%

	Three attempts	42	25%
	Four attempts	28	17%
	Five attempts	14	8%
	Six of more attempts	49	29%
Loved one's SUD Status			
	Active addiction, expressing a desire for recovery	51	30%
	Active addiction, but does not desire recovery	18	11%
	In recovery for a short time	41	28%
	In recovery for a moderate amount of time	29	20%
	In recovery for a long time	10	7%
Loved one's living situation			
	Lives with caregiver	87	51%
	Lives in their own home	9	6%
	Lives with romantic partner	17	8%
	Lives with extended family member	7	5%
	Lives in temporary housing	13	7%
	Homeless	4	2%
	Sober living home	7	2%

Participants reported that their SUD loved one ranged in age from 16 to 57 years old ( $M = 26.7$ ,  $SD = 7.40$ ), with an average reported age of onset for substance use of about 18 years old years ( $M = 17.93$ ,  $SD = 3.29$ ). In our sample, seven participants had a young adult family member who was 16 or 17 years old. Those responses were retained in the sample, as they were close to age 18, and the participant was a caregiver to that loved one, not the young adult themselves. SUD loved ones' substance of choice was primarily heroin or opioids ( $n = 67$ , 39%) followed by marijuana ( $n = 30$ , 18%), alcohol ( $n = 23$ , 14%), and cocaine ( $n = 19$ , 11%). Seventeen (9%) participants reported that their loved one used hallucinogens or benzodiazepines. One hundred and two participants ( $n = 102$ ) reported that their SUD loved one sought inpatient treatment, ninety-one ( $n = 91$ , 53%) used an intensive outpatient program or partial hospitalization program. One hundred and nine participants ( $n = 109$ , 63%) reported that their SUD loved one sought treatment from Alcoholics Anonymous or Narcotics Anonymous. Ninety two participants (53%) sought individual outpatient therapy, and family therapy ( $n = 59$ ). Participants reported that their SUD loved one attempted treatment multiple times. Fourteen participants (8%) made one attempt, while 23 (13%) made two attempts, 42 (25%) made three attempts, 28 (17%) made four attempts, and 14 participants (8%) made five attempts, while 49 (29%) made six or more attempts. For a full summary of treatment attempts and insurance coverage status, see Table 1.

At the time of this survey, 51(30%) participants reported that their SUD loved one was in active addiction and expressed a desire for recovery, while 18 (11%) were in active addiction and did not want recovery. Forty-one (28%) participants reported their SUD loved

one had been in recovery for a short time, twenty-nine (20%) had been in recovery for a moderate amount of time, and 10 (7%) had been in recovery long-term. Most participants ( $n = 87$ , 51%) provided a living space for their SUD loved one, while 6% ( $n = 9$ ) said their SUD loved one lived in their own home. Some SUD loved ones ( $n = 17$ , 8%) lived with a romantic partner, an extended family member ( $n = 7$ , 5%) or a roommate ( $n = 5$ , 3%). Thirteen participants (7%) said their SUD loved one was living in a hotel, temporary housing, or staying with friends ('couch surfing'); four loved ones (2%) were homeless; and seven (2%) lived in a sober living home. Seventy-four percent of participants ( $n = 126$ ) reported that their SUD loved one had experienced legal trouble directly related to their SUD. Charges reported included traffic violations such as driving under the influence, public intoxication, possession of a controlled substance, selling or purchasing a controlled substance, stealing, interpersonal violence, and prostitution. Thirty-three (19%) of participants reported that their loved one had been incarcerated for an offense related to their SUD.

## Procedure

After obtaining IRB approval from (University blinded for peer review, IRB2020-359), the research team asked permission from 12 administrators of online SUD support forums. Four forums responded affirmatively. Further, we recruited participants from a treatment facility in a rural area in the Southwest. Participants took about 18 minutes ( $M = 18.33$ ,  $SD = 12.12$ ) to complete this one-time, anonymous survey.

## Measures

In addition to the established measures used to measure the constructs assessed in this study, we used several single-item measures to obtain information about participants' demographic characteristics. We used a single-item measure to assess participant gender, age, relationship status, and the highest level of education. We assessed participant ethnicity using a single item. The response categories included Native Hawaiian/Pacific Islander, White, Black/African American/Mixed Race, American Indian, Middle Eastern, Latinx, and Asian. We designed single-item measures to assess facets of interest related to participants' loved ones and substance use status. Participants responded to questions from their perspective regarding the loved one's age, age of first substance use, the substance of choice, and current substance-use status (active use, attempting to reduce use, or not using). We also asked about whether their loved one has experienced legal trouble related to substance use.

**Treatment Attempts.** Participants were asked to select the category that best described the number of times their SUD loved one attempted treatment. Categories of this single-item measure were: one attempt, two attempts, three attempts, four attempts, five attempts, and finally, six or more attempts.

**Insurance Coverage.** The insurance coverage status for treatment attempts was assessed using two items. The first item asked, "Of these treatment attempts, how many attempts were covered by insurance?" An additional item asked, "Of these treatment

attempts, how many attempts were paid for out of pocket?”. Response categories for both items were the same as for the previous item assessing the number of attempts.

**Financial Anxiety.** The ten-item *Financial Anxiety Scale* (FAS) is used to assess financial anxiety (Shapiro & Burchell, 2012). Respondents indicate how true a statement is for them along a four-point Likert scale ranging from 0 = completely untrue to 3 = completely true. Higher scores indicate a higher level of financial distress. Example items from the FAS include: “I find monitoring my bank or credit accounts very boring,” “Thinking about my personal finances makes me feel anxious,” and “I prefer not to think about the state of my personal finances.” A complete list of scale items can be found in Shapiro and Burchell (2012). The coefficient alpha in the present study was 0.86. Financial anxiety was the dependent variable in the regression models tested.

**Caregiver burden.** The *Burden Scale for Family Caregivers* (BSFC) short version is a ten-item measure that assesses participant perception of the burden they experience related to their role as a family caregiver (Pendergrass et al., 2018). Participants respond on a three-point Likert scale ranging from strongly disagree to strongly agree. An example item from the measure includes “My life satisfaction has suffered because of the care I provide.” Possible scores range from 0 to 30, and higher scores indicate a greater perceived burden. A complete list of scale items can be found in Pendergrass et al. (2018). The coefficient alpha in the present study was 0.85.

**Depression.** The *Major Depressive Inventory* (Bech et al., 2001) measure, completed by respondents, provides information about the presence of symptoms of clinical depression (i.e., depression as a psychological disorder). The ten items are measured on a Likert Scale, offering six responses ranging from “at no time” to “all the time.” The scores range from 0 to 50, with higher scores indicating a greater likelihood for a depressed mood. The coefficient alpha in the present study was 0.85.

**Anxiety.** *Generalized Anxiety Disorder-7* (Spitzer et al., 2006) provides information about symptoms associated with anxiety disorders that behavioral health professionals may diagnose. There are seven items measured on a Likert Scale. Responses are: “not at all,” “several days,” “more than half the days,” and “nearly every day.” The scores range from 0 to 21, with higher scores suggesting greater levels of anxiety. The coefficient alpha in the present study was 0.85.

## Data Validation Procedures

Since we recruited our sample, in part, from online forums, we employed rigorous procedures to ensure the integrity of our data (Chandler & Shapiro, 2016). First, the survey was protected from potential hackers using a password, which was included on the recruitment form. Participants were also asked to complete a captcha to verify that they were human participants rather than bot responses. We checked the location of each IP address to ensure that it was coming from the United States, per inclusion criteria. Next, we plotted the longitude and latitude location of the response on a map. We listwise deleted cases from locations not deemed plausible, such as inside a storage unit far from the stated

location of residence or in the ocean, many miles offshore without reasonable expectation of access to the internet. We engaged in these procedures to ensure that human beings provided all data. Given the use of a financial incentive, we used more rigorous data management practices to protect against potential “spamming” of responses by computerized bots. In their paper on using crowdsourcing to sample, Chandler and Shapiro (2016) identify bot responses as a common occurrence, particularly when there is a financial incentive for participation. Chandler and Shapiro (2016) recommend reviewing multiple variables to determine that responses were obtained from a human being. They recommend examining multiple data points within and across cases, including gender, race, age, user location, and IP address (Chandler & Shapiro, 2016). We compared the participant's age with the age of the SUD loved one, and the relationship between the participant and the SUD loved one to ensure that it was plausible. For example, if the participant claimed their age was 28, their SUD loved one was 22, and selected that the SUD loved one was their grandchild, we concluded the case was not from an actual participant, and the case was listwise deleted. We then checked the age of the SUD loved one in conjunction with the reported age of first substance use to ensure that the current age was greater than the age of first use. If the age of first use exceeded the current age, the case was deleted listwise. Further, cases with 50% missingness or greater were listwise deleted.

### **Data Analysis**

All analyses were conducted using the Statistical Package for the Social Sciences (SPSS) version 25. It was necessary to conduct preliminary data analyses to ensure that predictor variables used showed a relationship to the dependent variable. Table 2 provides distributional information about the study variables. Multiple regression was best suited for use in the present study because it predicted the value of a variable based on the value of two or more other variables (Tabachnick & Fidell, n.d.). We used the forward entry method because forward selection is a stepwise regression that begins with a model containing only the constant. In each step, variables are added to the model until a model that offers the best fitting solution is revealed. The forward entry method allowed us to ensure that the variables that accounted for most variance were retained in the equation and met a statistical threshold for inclusion. Consistent with an exploratory approach, this method freed the analyses from *a priori* assumptions. Forward entry allowed us to develop the most parsimonious and accurate prediction model possible (Chowdhury & Turin, 2020).

**Table 2.***Descriptive Statistics of Measures*

Variable	N	Minimum	Maximum	Mean	Standard Deviation	Skewness		Kurtosis	
						Statistic	Standard Error	Statistic	Standard Error
Caregiving Burden	171	10.00	38.00	18.73	4.97	.450	.186	.289	.369
Financial Anxiety	171	9.00	40.00	25.47	6.59	.269	.186	-.462	.369
Generalized Anxiety	171	7.00	28.00	18.32	4.65	-.217	.186	-.025	.369
Depression	171	12.00	65.00	37.00	10.30	.003	.186	.332	.369

**RESULTS**

Participants in our sample reported high levels of caregiving burden ( $M = 18.73$ ,  $SD = 4.97$ ) and high levels of financial anxiety ( $M = 25.74$ ,  $SD = 4.97$ ). Pearson correlations showed a significant moderate relationship between caregiver burden and financial anxiety  $r(171) = 0.364$ ,  $p < 0.001$ . Distributions of scores on study measures are further described in Table 3.

**Table 3.***Summary of Treatment Attempts and Insurance Coverage*

	Number of Treatment Attempts		Number of Attempts Covered by Insurance		Number of Attempts Paid out of Pocket by Caregiver	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1 <sup>st</sup> Attempt	14	8%	29	19%	41	24%
2 <sup>nd</sup> Attempt	23	13%	45	30%	28	16%
3 <sup>rd</sup> Attempt	42	24%	25	17%	12	7%
4 <sup>th</sup> Attempt	28	16%	9	6%	9	5%
5 <sup>th</sup> Attempt	14	8%	7	5%	7	4%
6 <sup>th</sup> + Attempt	49	29%	23*	9%	27	16%

\*Eleven participants (5%) reported receiving partial insurance coverage for some attempts

**Regression Model 1.** In the first model, we tested the effect of caregiver burden, the number of treatment attempts, treatment type, and insurance coverage status for each attempt on financial anxiety. Financial anxiety was the dependent variable in the regression models tested. We sought to understand how each of these variables would contribute significantly to scores on the financial anxiety measure. This regression model showed that the overall model had a strong collective effect associated with financial anxiety ( $F(2, 147) = 11.54, p < 0.001, R^2 = 0.136$ ). Caregiver burden ( $B = 0.436, t = 4.4, p < 0.000$ ) and Number of treatment attempts covered by insurance ( $B = 0.475, t = 2.25, p < 0.026$ ) contributed significantly to this model. In Table 4a, we present the significance of each variable that contributed to the model.

**Regression Model 2.** We conducted a second regression equation to further add to our model. The second regression equation tested the effect of caregivers' characteristics on their financial anxiety. We regressed financial anxiety on participant's depression, anxiety, relationship status, and highest level of education. Depression ( $B = -0.287, t = 6.511, p < 0.001$ ) was associated with financial anxiety, while anxiety and level of education did not contribute to the model and were thus excluded from the final model. Tables 4a and 4b present the results of the modeling, including both retained and rejected variables.

**Table 4a.**

*Beta weights for treatment characteristics equation, variables retained in the model*

	<i>B</i>	<i>S.E.</i>	$\beta$	<i>t</i>	<i>P</i>
<b>Regression Model 1</b>					
Caregiver burden	0.436	0.099	0.340	4.400	0.000*
Number of treatment attempts covered by insurance	0.475	0.210	0.174	2.250	0.026*
<b>Regression Model 2</b>					
Depression	-0.287	0.044	-0.448	-6.511	0.000

**Table 4b.***Treatment characteristics equation, variables not retained in the model*

	<i>B</i>	<i>t</i>	<i>P</i>	<i>Partial Correlation</i>	<i>Tolerance</i>
<b>Regression Model 1</b>					
Number of treatment attempts	0.023	0.277	0.782	0.023	0.880
Inpatient treatment participation	0.113	1.467	0.141	0.125	0.976
Outpatient treatment participation	-0.122	-1.521	0.130	-0.125	0.905
Participation in AA/NA	0.080	0.997	0.320	0.082	0.919
<b>Regression Model 2</b>					
Generalized Anxiety	-0.032	-0.354	0.724	-0.027	0.587
Current Relationship Status	0.109	1.570	0.117	0.121	0.981
Education Level	0.043	0.619	0.537	0.048	0.992

## DISCUSSION

The present study aimed to provide information about the factors associated with perceived financial anxiety among caregivers of young adults who use substances. A secondary aim of this work was to expand treatment providers' knowledge of how perceptions of the financial aspects of support manifest for caregivers of substance-using adults. First, exploratory analyses provided valuable information regarding the number of treatment attempts family members reported for their loved one. Caregivers reported a substantial number of attempts, with five or more attempts being the most frequently reported number of attempts to achieve sobriety. Unfortunately, caregivers reported that health insurance providers paid for only a small percentage of those attempts. Thus, the majority of treatment attempts were associated with substantial personal costs.

Regarding treatment factors associated with financial anxiety, results suggest that insurance coverage for treatment attempts and caregiver burden predicted financial anxiety. Individual's subjective reactions to high financial anxiety are problematic when viewed through a transactional stress and coping lens (Lazarus & Folkman, 1984), leading to help-



seeking avoidance. Therefore, financial counselors should engage in efforts to promote more active coping strategies that engage problem-solving towards help-seeking to identify financial solutions (Grable et al., 2014). These results were as expected. Caregivers who feel burden associated with caretaking for their substance-using child and who experience a high number of treatment attempts, especially a high number of attempts not covered by insurance, experience more financial anxiety. Finally, depression was the personal characteristic that best predicted financial anxiety. That is, caregivers who reported feeling more depressed were likely to experience financial anxiety. Anxiety was not significantly associated with financial anxiety, which is likely because the measure of anxiety used in the present study was a diagnostic measure that aligns with the symptoms of clinical anxiety disorders rather than stressful or burdensome feelings associated with financial anxiety. Therefore, it may also be useful for financial counselors and mental health professionals to collaborate to positively impact the compounding effects of depression, anxiety, and financial anxiety.

Taken together, these results add to the growing evidence that caregivers of individuals with SUDs experience not just economic strain but also psychological distress as a result of their child's substance use (Butler & Bauld, 2005; Levine, 1985; Saatcioglu et al., 2006). Further, these results lend support to findings by others (e.g., Ray et al., 2007; Weisner et al., 2010) that suggest that caregivers of SUD adults have higher out-of-pocket health care expenditures. It is likely that the financial burden of caring for a loved one with a SUD is highly stressful, and financial anxiety has the potential to be personally impactful for caregivers.

The caregiving demands of supporting a loved one with a SUD may be experienced as taxing for both emotional and pragmatic reasons. However, the nascent literature on these experiences tends to focus on the emotional toll, thus neglecting the tangible resources families sacrifice to secure adequate treatment and the intersection of these two topics: the psychological distress financial burdens create. Given that information about the financial anxieties associated with caring for a loved one with SUD, the present study provides important implications for financial therapists. This study informs financial therapists' understanding of the stressful factors that caregivers face, including financial and emotional circumstances. The results presented here suggest high levels of caregiver burden reported in this sample and high levels of financial anxiety. Addressing barriers to treatment driven by the cost of care may offer protective effects against caregiver burnout and financial anxiety. For financial therapists, it may be essential to address feelings of caregiving burden and financial anxiety associated with caregiving for young adult children, especially those with a SUD. One specific consideration that may prove helpful in a financial therapy setting may be to address the societal construction of caregiving by inviting caregivers to reflect on the burdensome and often unreasonable expectations to expend tremendous resources to care for their children (Forbes et al., 2020). These expectations are often gendered and result in adverse mental health outcomes that differentially impact mothers (Craig & Mullan, 2010; McCann et al., 2012).

## Limitations and Future Directions

While the findings from this study are useful and provide valuable information about financial anxiety experienced by caregivers of young adults with SUDs, the study was not without its limitations. First, the mechanism by which the sample was obtained carries with it several challenges. The survey was conducted entirely online, and the majority of participants were solicited from online treatment support groups. There are likely characteristics of caregivers who seek support online that might make them different in meaningful ways from caregivers who do not seek support from an online community. Further, individuals who completed the survey did so online and must have had some comfort sharing information about their experiences and their child through an online platform. Not all parents would likely do so.

Further, the sample itself poses challenges to external validity. The majority of individuals who completed the survey were women, highly educated, and partnered. The individuals who responded also represented a cultural majority group in the United States. Therefore, the experiences of other ethnic groups might not be well represented by the predominantly White sample. Future researchers should seek out more diverse groups of respondents and specifically solicit information from members of cultural groups that are underserved by traditional substance use treatment services to better understand the stressors associated with those groups. We also did not solicit information about the financial status of the respondents, including net worth, financial assets, or subjective comfort in one's financial status. Future studies of financial anxiety should include more information about actual financial status. Financial characteristics might be valuable predictors of financial anxiety, as those with more liquid assets may simply be more comfortable and able to provide financially for substance-using loved ones. These factors have important implications for whether and to what extent individual caregivers appraise the demands of SUD treatment costs as stressful, as described by Lazarus and Folkman (1984), thus shaping their engagement or avoidance of help-seeking through financial therapists and related supports. More information about the subjective appraisal of treatment costs would strengthen future studies, perhaps by modifying more general appraisal measures to this specific struggle or through mixed methods approaches incorporating qualitative reports of caregivers' experiences.

Future researchers may wish to further examine insurance coverage and availability for substance use treatment. While many respondents reported that treatment attempts were not covered by insurance, it is unknown whether this was due to actual limitations of the policy, having not met in- or out-of-network deductibles or out-of-pocket-maximums, or was related to a lack of information about insurance coverage. Health insurance illiteracy is a troubling problem. Some research suggests that individuals are generally not aware of their levels of coverage under most insurance plans, both commercial and state/federally funded (Villagra et al., 2019). Future research should include more information about health insurance plans to which respondents and their substance-using children subscribe to understand the scope of the problem more thoroughly. Further, future researchers might include questions related to health insurance literacy to understand how health insurance literacy may impact financial anxiety.

## **CONCLUSION**

The epidemic of SUDs gripping the U.S. may impact families for generations, creating deep unmet needs for human service programming across various domains. While mental and behavioral health are among these unmet needs, addressing the financial anxiety that results from limited access to quality care will reduce barriers to treatment engagement. Meeting needs like financial insecurity will bolster outcomes for the person in recovery as well as their supportive caregivers, particularly with additional work addressing the needs of marginalized racial and ethnic groups.

## REFERENCES

- Ali, M. M., Teich, J. L., & Mutter, R. (2015). The role of perceived need and health insurance in substance use treatment: Implications for the affordable care act. *Journal of Substance Abuse Treatment, 54*, 14-20. doi:10.1016/j.jsat.2015.02.002
- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>
- Andrews, J. A., & Westling, E. (2016). Substance use in emerging adulthood. In J. J. Arnett (Ed.), *The Oxford Handbook of Emerging Adulthood* (pp. 521-542). Oxford, UK: Oxford University Press.
- Bech, P., Rasmussen, N. A., Olsen, L. R., Noerholm, V., & Abildgaard, W. (2001). The sensitivity and specificity of the Major Depression Inventory, using the Present State Examination as the index of diagnostic validity. *Journal of affective disorders, 66*(2), 159-164. doi:10.1016/s0165-0327(00)00309-8
- Buck, J. A. (2011). The looming expansion and transformation of public substance abuse treatment under the Affordable Care Act. *Health Affairs (Project Hope), 30*(8), 1402-1410. <https://doi.org/10.1377/hlthaff.2011.0480>
- Butler, R., & Bauld, L. (2005). The parent's experience: Coping with drug use in the family. *Drugs: Education, Prevention, and Policy, 12*, 35-45. doi:10.1080/096876304200027530.
- Center for Behavioral Health Statistics and Quality (2015). Behavioral health trends in the United States: results from the 2014 National Survey on Drug Use and Health (HHS Publication No. SMA 15-4927, NSDUH Series H-50). Retrieved from <http://www.samhsa.gov/data/>.
- Chandler, J., & Shapiro, D. (2016). Conducting clinical research using Crowdsourced convenience samples. *Annual Review of Clinical Psychology, 12*(1), 53-81. <https://doi.org/10.1146/annurev-clinpsy-021815-093623>
- Chowdhury, M. Z., & Turin, T. C. (2020). Variable selection strategies and its importance in clinical prediction modelling. *Family Medicine and Community Health, 8*(1), e000262. <https://doi.org/10.1136/fmch-2019-000262>
- Consumers Union. (2012). *Measuring health insurance literacy: A call to action*.
- Cook, B. L., & Alegría, M. (2011). Racial-ethnic disparities in substance abuse treatment: The role of criminal history and socioeconomic status. *Psychiatric Services, 62*(11), 1273-1281. doi:10.1176/appi.ps.62.11.1273
- Craig, L., & Mullan, K. (2010). Parenthood, gender and work-family time in the United States, Australia, Italy, France, and Denmark. *Journal of Marriage and Family, 72*, 1344-61.
- Cummings, J. R., Wen, H., Ritvo, A., & Druss, B. G. (2014). Health insurance coverage and the receipt of specialty treatment for substance use disorders among US adults. *Psychiatric Services, 65*(8), 1070-1073. doi:10.1176/appi.ps.201300443
- D'Aniello, C., Tambling, R., Russell, B., Smith, M., Jones, E., Silva, M. (2021). Mothers' experiences of navigating the substance use treatment system with their young adult children. *American Journal of Family Therapy*. DOI: 10.1080/01926187.2020.1858368

- D’Aniello, C., Tambling, R. Smith, M., Jones, E., Silva, M. (Manuscript in preparation). “Every time the phone rings, my heart stops”: Mothers’ experiences of having a young adult child with a substance use disorder.
- Dijkstra-Kersten, S., Biesheuvel-Leliefeld, K., van der Wouden, Johannes C., Penninx, Brenda W. J. H., & van Marwijk, Harm W. J. (2015). Associations of financial strain and income with depressive and anxiety disorders. *Journal of Epidemiology and Community Health, 69*(7), 660-665. <https://10.1136/jech-2014-205088>
- Epel, E. S., Corsswell, A. D., Mayer, S. E., Prather, A. A., Slavich, G. M., Puterman, E., & Mendes, W. B. (2018). More than a feeling: A unified view of stress measurement for population science. *Frontiers of Neuroendocrinology, 49*, 147-169.
- Forbes, L. K., Donovan, C., & Lamar, M. R. (2020). Differences in intensive parenting attitudes and gender norms among U.S. mothers. *The Family Journal, 28*(1), 63-71. <https://doi.org/10.1177/1066480719893964>
- Grable, J., Heo, W., & Rabbani, A. (2014). Financial anxiety, physiological arousal, and planning intention. *Journal of Financial Therapy, 5*(2), 1-18. <https://ezproxy.lib.uconn.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=psych&AN=2015-56772-001&site=ehost-live>
- Grant, B. F., Saha, T. D., Ruan, W. J., Goldstein, R. B., Chou, S. P., Jung, J., Zhang, H., Smith, S. M., Pickering, R. P., Huang, B., & Hasin, D. S. (2016). Epidemiology of DSM-5 drug use disorder: Results from the National Epidemiologic Survey on Alcohol and Related Conditions–III. *JAMA Psychiatry, 73*(1), 39–45. <https://doi.org/10.1001/jamapsychiatry.2015.2132>
- Harford, T.C., Yi, H.-Y., Chen, C.M., & Grant, B.F. (2005). Substance use disorders and self- and other-directed violence among adults: Results from the National Survey on Drug Use and Health. *Journal of Affective Disorders, 225*, 365-373
- Hayes, S. (1996). *The cultural contradictions of motherhood*. New Haven, CT: Yale University Press.
- Hodgkin, D., Horgan, C. M., Garnick, D. W., & Merrick, E. L. (2009). Benefit limits for behavioral health care in private health plans. *Administration and Policy in Mental Health and Mental Health Services Research, 36*(1), 15-23. doi:10.1007/s10488-008-0196-5
- Johnston, L. D., Miech, R. A., O’Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2019). *Monitoring the Future national survey results on drug use 1975-2018: Overview, key findings on adolescent drug use*. Ann Arbor: Institute for Social Research, University of Michigan.
- Jones, S. M. W., Du, Y., Panattoni, L., & Henrikson, N. B. (2019). Assessing worry about affording healthcare in a general population sample. *Frontiers in Psychology, 10*<https://10.3389/fpsyg.2019.02622>
- Karriker-Jaffe, K. J., Li, L., & Greenfield, T. K. (2018). Estimating mental health impacts of alcohol’s harms from other drinkers: Using propensity scoring methods with national cross-sectional data from the united states. *Addiction, 113*(10), 1826-1839. doi:10.1111/add.14283
- Kaur, A., Mahajan, S., Sunder, S., & Singh, T. (2018). Assessment of role of burden in caregivers of substance abusers: A study done at swami vivekananda drug de-addiction centre, govt. medical college, amritsar. *International Journal of Community Medicine and Public Health, 5*(6), 2380-2383.

- Kessler, R. C., Demler, O., Frank, R. G., Olfson, M., Pincus, H. A., Walters, E. E., ... & Zaslavsky, A. M. (2005). Prevalence and treatment of mental disorders, 1990 to 2003. *New England Journal of Medicine*, 352(24), 2515-2523.
- Lazarus, R. S., & Folkman S. (1984). *Stress, Appraisal & Coping*. Springer, New York.
- Levine, B. (1985). Adolescent substance abuse: Toward an integration of family systems and individual adaptation. *The American Journal of Family Therapy*, 13(2), 3-16. doi:10.1080/01926188508250217
- Lundgren, L. M., Amaro, H., & Ben-Ami, L. (2005). Factors associated with drug treatment entry patterns among Hispanic women injection drug users seeking treatment. *Journal of Social Work Practice in the Addictions*, 5(1-2), 157-174. doi:10.1300/J160v5n01\_08
- Mark, T. L., Wier, L. M., Malone, K., Penne, M., & Cowell, A. J. (2015). National estimates of behavioral health conditions and their treatment among adults newly insured under the ACA. *Psychiatric Services*, 66(4), 426-429. doi:10.1176/appi.ps.201400078
- Marshall, G. L., Kahana, E., Gallo, W. T., Stansbury, K. L., & Thielke, S. (2020). The price of mental well-being in later life: The role of financial hardship and debt. *Ageing & Mental Health*, <https://10.1080/13607863.2020.1758902>
- McCann, D., Bull, R., & Winzenberg, T. (2012). The daily patterns of time use for parents of children with complex needs. *Journal of Child Health Care*, 16, 26-52
- Merrick, E. L., Reif, S., Hiatt, D., Hodgkin, D., Horgan, C. M., & Ritter, G. (2012). Substance abuse treatment client experience in an employed population: Results of a client survey. *Substance Abuse Treatment, Prevention, and Policy*, 7 doi:10.1186/1747-597X-7-4.
- Murphy, J.G. & Dennhardt, A.A. (2016). The behavioral economics of young adult substance abuse. *Preventative Medicine*, 92, 24-30. <http://dx.doi.org/10.1016/j.ypmed.2016.04.0220091-7435>
- National Institute on Drug Abuse. (2020). Is drug addiction treatment worth its cost? National Institute on Drug Abuse. <https://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition/frequently-asked-questions/drug-addiction-treatment-worth-its-cost>
- National Institute on Drug Abuse. (2018, June 8). Heroin. Retrieved from <https://www.drugabuse.gov/publications/research-reports/heroin> on 2018, December 5.
- Partnership to End Addiction (2020). Covering the Costs of Addiction Treatment Whether Insured or Not. <https://drugfree.org/article/paying-for-addiction-treatment/#>
- Pendergrass, A., Malnis, C., Graf, U., Engel, S., & Graessel, E. (2018). Screening for caregivers at risk: Extended validation of the short version of the Burden Scale for Family Caregivers (BSFC-s) with a valid classification system for caregivers caring for an older person at home. *BMC Health Services Research*, 18(1), 229. <https://doi.org/10.1186/s12913-018-3047-4>
- Pinedo, M. (2019). A current re-examination of racial/ethnic disparities in the use of substance abuse treatment: Do disparities persist? *Drug and Alcohol Dependence*, 202, 162-167. doi:10.1016/j.drugalcdep.2019.05.017

- Ray, G. T., Mertens, J.R., Weisner, C. (2007). The excess medical cost and health problems of family members of persons diagnosed with alcohol or drug problems. *Medical Care*, 45(2), 116-122.
- Russell, B.S. & Guite, J.W. (2020). Parenting impacts from a mindfulness-based pilot intervention for families facing pediatric chronic pain. *Journal of Child and Family Studies*.
- Saatcioglu, O., Erim, R., & Cakmak, D. (2006). Role of family in alcohol and substance abuse. *Psychiatry and Clinical Neurosciences*, 60, 125-132. doi:10.1111/j.1440-1819.2006.01476.x
- Sages, R. A., Britt, S. L., & Cumbie, J. A. (2013). The correlation between anxiety and money management. *College Student Journal*, 47(1), 1-11.  
<https://ezproxy.lib.uconn.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=psych&AN=2013-10664-001&site=ehost-live>
- Santos, S., Crespo, C., Canavarro, M. C., Alderfer, M. A., & Kazak, A. E. (2016). Family rituals, financial burden, and mothers' adjustment in pediatric cancer. *Journal of Family Psychology*, 30(8), 1008-1013. <https://10.1037/fam0000246>
- Shapiro, G.K., & Burchell, B.J. (2012). Measuring financial anxiety. *Journal of Neuroscience, Psychology and Economics*, 5(2), 92-103. <https://doi.org/10.1037/a0027647>.
- Sharp, L., Carsin, A., & Timmons, A. (2013). Associations between cancer-related financial stress and strain and psychological well-being among individuals living with cancer. *Psycho-Oncology*, 22(4), 745-755. <https://10.1002/pon.3055>
- Shumway, S. T., Bradshaw, S. D., Hayes, N., Schonian, S., & Kimball, T. G. (2019). Prefrontal cortex functioning of family members of those with a substance use disorder. *Alcoholism Treatment Quarterly*, 37(1), 75-98.  
<https://doi.org/10.1080/07347324.2018.1488549>
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of Internal Medicine*, 166(10), 1092-1097. doi: 10.1001/archinte.166.10.1092
- Substance Abuse and Mental Health Services Administration (2017). Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. Results from the 2016 National Survey on Drug Use and Health: Detailed Tables. Retrieved from <https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016>
- Substance Abuse and Mental Health Services Administration. (2020). *Key substance use and mental health indicators in the United States: Results from the 2019 National Survey on Drug Use and Health (HHS Publication No. PEP20-07-01-001, NSDUH Series H-55) (No. PEP20-07-01-001)*. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.  
<https://www.samhsa.gov/data/>
- Summers, L., & Gutierrez, D. (2018). Assessing and treating financial anxiety: The counselor as a resource, rather than referrer. *The Journal of Individual Psychology*, 74(4), 437-448. <https://10.1353/jip.2018.0032>
- Tabachnick, B. G., & Fidell, L. S. (n.d.). *Using multivariate statistics*. Prentice Hall.
- Weisner, C., Parthasarathy, S., Moore, C., & Mertens, J. R. (2010). Individuals receiving addiction treatment: Are medical costs of their family members reduced? *Addiction*, 105(7), 1226-1234. doi:10.1111/j.1360-0443.2010.02947.x

- Wu, L., Kouzis, A. C., & Schlenger, W. E. (2003). Substance use, dependence, and service utilization among the US uninsured nonelderly population. *American Journal of Public Health, 93*(12), 2079-2085. doi:10.2105/AJPH.93.12.2079
- Villagra, V. G, Bhuvu, B., Coman, E., Smith, D. O., & Fifield, J. (2019). Health insurance literacy: disparities by race, ethnicity, and language preference. *The American journal of managed care, 25*(3): e71-e75.
- Viseu, J., Leal, R., de Jesus, S. N., Pinto, P., Pechorro, P., & Greenglass, E. (2018). Relationship between economic stress factors and stress, anxiety, and depression: Moderating role of social support. *Psychiatry Research, 268*, 102-107. <https://10.1016/j.psychres.2018.07.008>