

Effects of Gender and Parenthood on Public Perceptions of Opioid Abuse

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Abstract

Approximately twenty million Americans suffer from substance use disorders, often with devastating consequences. Beyond personal distress and impairment, individuals experiencing substance abuse encounter significant stigma from others. The present investigation sought to examine whether this stigma toward individuals with substance abuse problems is affected by two demographic characteristics: gender (male vs. female) and parental status (married with children vs. married without children). In this study, 415 online participants read a short description of a hypothetical opioid abuser and then rated their perceptions of the individual's dangerousness and responsibility, and they completed a 5-item rating scale assessing their feelings if interacting with the individual. Participants were randomly assigned to read one of four descriptions, differing only according to the gender or parental status of the hypothetical opioid abuser. The results indicated that overall, participants have moderate levels of stigma towards the hypothetical subject of the vignette. The four conditions only differed significantly in terms of dangerousness rating and caring affect (empathy, sympathy, and supportiveness). The male nonparent opioid abuser was seen as significantly more dangerous than the mother by participants. Further, the male nonparent was viewed with significantly less caring and sympathy than the female nonparent. Based on the results of this study, males are viewed with less stigmatizing attitudes than females or mothers and overall levels of stigma towards opioid abuse are moderate. Understanding the nature of stigma towards this population could be used to reduce stigma and subsequently decrease barriers to care as well as increase health and quality of life.

Keywords: Substance Abuse, Parenthood, Public Perception

1. Introduction

Many of the approximately twenty million Americans who suffer from substance use disorders experience devastating consequences as a result.¹⁴ In addition to personal distress and impairment, individuals experiencing substance abuse encounter significant stigma (prejudice, discrimination, and/or unfavorable misconceptions) from others.¹⁹ These negative societal perceptions have deleterious effects on the population they are directed towards¹.

While prevalence rates of substance use disorders have historically been higher in males than females, female prevalence is on the rise and the gender gap in substance use disorder prevalence continues to decrease in size.¹⁰ This change has highlighted the growing importance of investigating potential gender differences in the experience of substance abuse. Investigating the unique impact of stigma in females who experience substance abuse can contribute to advances in treatment accessibility and retention for this subpopulation.

The following literature review will briefly describe past research on the negative impact of stigma as well as the influence of gender and parenthood status on the public perception of individuals experiencing substance abuse. Further, societal gender differences in the perception of parenthood will be discussed in relation to the potential impact they could have on stigma towards this population.

1.1 Negative Effects of Perceived Stigma in Those Experiencing Substance Abuse

Past research has found that stigmatizing attitudes towards substance abusers are common within the general population.¹⁹ In addition, individuals experiencing substance abuse have been found to be aware of or even themselves possess negative beliefs about substance abusers, two types of stigma known as perceived stigma and internalized stigma.¹ When an individual experiencing substance abuse encounters discrimination, it may lead to awareness of others' stigmatizing attitudes. These attitudes may then be incorporated into an individual's identity and self-concept, which is referred to as internalized stigma.

Internalized or perceived stigma in individuals experiencing substance abuse is associated with multiple negative health outcomes. Ahern et al.¹ found that internalized stigma impacts both mental and physical health. Additionally, perceived discrimination, alienation, and devaluation from others may also serve as a significant source of stress. These discriminatory experiences are also associated with poorer mental and physical health outcomes in those who are experiencing substance abuse and perceived alienation in particular is linked with lowered mental health.¹ Individuals experiencing substance abuse also report unfair treatment from others as a result of their status as substance abuser.⁷

Perceived stigma can also serve as a barrier to accessing or completing care. In a study by Stringer and Baker,¹³ some participants who were experiencing substance abuse and had an unmet need for treatment reported stigma as an obstacle to receiving care. Stigma was reported as a barrier to care more often by white individuals, those with higher total family incomes, and those with at least some college education.

Individuals with substance use disorders who enroll in treatment may be at risk of being permanent labeled as "substance abusers." Research indicates that the stigma associated with being officially labelled as a substance abuser can continue even during remission from substance use disorders.⁷ Thus, the threat of official labelling may deter individuals from ever entering treatment. Alternatively, the deleterious effect that internalized stigma has on self-esteem or self-concept could result in individuals underestimating their ability to successfully be rehabilitated.¹

1.2 Substance Abuse Stigma Towards Females, Males, and Parents

Previous research conducted on the impact of gender on the public perceptions of individuals experiencing substance abuse has yielded mixed results. In a study investigating the impact of gender on perception of individuals with opioid use disorder, respondents rated positive affect (concern and sympathy) towards a hypothetical female with opioid use disorder higher than for a hypothetical male with opioid use disorder.⁵ These results suggest that females experiencing substance abuse garner more sympathy and care from the general population than their male counterparts. This may be due to the culturally prescribed gendered expectations for behavior seen in American society that suggest females need paternalistic control. Because females may be regarded as weak, emotional, or irrational, the public may perceive them with more sympathy and concern.⁶

Conversely, in a study by Stringer and Baker,¹³ females with an unmet need for substance abuse treatment reported perceiving the same amount of societal stigma as males with an unmet need. These results suggest there is no significant difference between the stigma encountered by females and males who are experiencing substance abuse.

However, some studies have suggested that females and parents who are experiencing substance abuse face more stigma-related barriers to seeking treatment than their male counterparts.¹⁰ Stringer and Baker¹³ found that among females and parents (both mothers and fathers) with an unmet need for treatment, societal stigma was more likely to serve as a barrier to care than for nonparent males. Thus, females and parents of both genders may be more likely to avoid seeking treatment as a result of stigma than males without children. Given that a larger percentage of females than males were parents in the population of this study, these results could indicate that parenthood has a larger impact on stigma and treatment seeking in the female population.

Parents in general may encounter more barriers to seeking and accessing treatment as well as barriers to treatment retention. Logistical factors such as not being able to provide care or emotional support for children while in treatment may dissuade parents who are experiencing substance abuse from seeking care or completing treatment programs.¹² This could indicate that treatment-seeking difficulties among the parent population may be explained by additional factors outside of stigma and negative public perception.

A significant amount of past research investigates the impact of maternal substance abuse on parenting ability while relatively few investigate the effect of paternal substance abuse. In a study conducted by Baker and Carson,² the substance abusing mothers who were interviewed reported ambivalence about their parenting abilities. While participants felt that they could be bad parents at times, these mothers also felt great care for and commitment to

their children. This view defies the dominant cultural view of mothers who abuse substances as inadequate or bad parents.

In another study, mothers who were experiencing substance abuse were interviewed regarding the social perceptions they have encountered. Participants indicated that there was significant stigma attached to being a mother with substance abuse.¹⁸ Encountering this stigmatization from others led some of the participants to fear of authorities such as Child Welfare Services. Fear of authority could serve as a significant barrier to treatment-seeking among mothers experiencing substance abuse.

These results affirm that mothers with substance abuse may encounter stigmatizing attitudes from others including being viewed by others as an inadequate parent. Further, this stigma can instill fear of losing one's child or being formally labelled as a substance-abusing parent (for instance, by seeking treatment and receiving a Substance Use Disorder diagnosis). These factors could at least partially explain why parents, and particularly mothers, are more likely to indicate barriers to care both related and unrelated to stigma.¹³⁻¹⁸

1.3 Perceptions of Motherhood Versus Fatherhood

The view of motherhood and fatherhood may differ in the American majority culture. In Western societies, mothers are seen as more responsible than fathers for the care of their children.^{9,17} This social construction of motherhood may view mothers as the ideal caretaker of children, thus, giving mothers sole parenting responsibility.

A review of the literature on motherhood done by Medina and Magnuson⁹ suggests that mothers are evaluated based on how well they live up to the standard set by the concept of "intensive mothering," or the degree to which mothers devote their time and energy to meeting the needs of their children. Social ideals of motherhood seem to imply that mothers have more responsibility than fathers to perform childcare duties. Further, mothers are assumed to have more time and resources to take care of children.

Villicana et al.¹⁷ found that when participants were asked to judge hypothetical scenarios in which parents failed at their responsibilities, mothers were punished more than fathers. Further, respondents rated the hypothetical mothers and fathers who succeeded in their parenting duties equally in terms of parenting ability even when mothers assumed more responsibility than fathers. These results suggest that mothers may be expected to be more invested in parenting duties than fathers. When these duties are not fulfilled, it may follow that mothers are seen as more responsible than fathers for the parenting failure.

As a result, mothers who are experiencing substance abuse may be more stigmatized by society than fathers in a similar position. If the general population views parental substance abuse as a parenting failure, then mothers who are experiencing substance abuse may be seen as more responsible for this failure than fathers in a similar position. Alternatively, the stereotypical view of motherhood in the United States may result in less stigmatizing attitudes and instead more sympathy and concern towards mothers with substance abuse given they are seen as having to balance both mothering duties and the negative effects of active substance abuse.

While research on the influence of gender on substance abuse stigma has mixed results, there is evidence to suggest more stigma-related barriers to care in both the female and parent populations. However, the impact of the intersection of parenthood status and gender on the public perception of substance abuse has not yet been studied. It is possible that research of this kind can shed light on the impact of both gender and parenthood status and stigmatizing attitudes, which could, in turn shape stigma prevention or reduction efforts. The present study will investigate the impact of both gender and parenthood status on the perception of individuals experiencing prescription opioid abuse.

2. Method

2.1 Participants

Survey participants were recruited through the Amazon Mechanical Turk (MTurk) service. MTurk provides a platform for individuals (known as "workers") to take surveys or engage in other labor tasks provided by "requesters" (i.e., researchers) for a small amount of compensation.⁸ MTurk samples tend to be more diverse and representative of the general population than those produced by more traditional survey methods.^{5,8} In addition, MTurk sampling allowed the findings of this project to be compared to past research on the effect of gender on public perceptions of individuals experiencing opioid abuse, as this was the approach used by the most closely linked previous study conducted by Goodyear et al.⁵

Participants were linked on MTurk to the online data collection platform, SurveyMonkey. The mean age of the final sample ($n = 415$) was 37.3 years ($SD = 12.17$) and ranged from 19 to 81; 40% identified as female and 60% as male. The majority (70.4%) described themselves as White, 6.7% as Asian American, 6.3% as African-American, 2.4% as Native American, 9.4% as Latino or Hispanic, 4.6% as multiracial, and 0.2% as other. Religious affiliation in the sample was 22.4% Protestant, 21.7% Roman Catholic, 2.2% Jewish, and 9.6% other; 25.8% identified as agnostic or atheist and 18.3% reported no religious affiliation. Education level ranged from 11 years (i.e., completion of 11th grade) to 24 years (i.e., graduate or professional degrees) with a mean of 15.3 years.

Participants were also asked about both marital and parenthood status. Out of the 415 participants, 42.4% were married, 13.7% were living with a partner, 32.8% had never married, 9.6% were separated or divorced, and 1.4% were widowed. Approximately half of respondents (48.4%) identified as parents and half (51.6%) as nonparents.

2.2 Measures

Data was collected anonymously. The survey began with the demographic items, along with items about respondents' previous contact with substance abuse. Next, participants were randomly assigned to read one of four short vignettes about a hypothetical opioid abuser. The survey concluded by asking respondents to rate their perceptions of different characteristics of the hypothetical abuser.

2.2.1 vignettes

Each of the four vignettes provided a short description of a hypothetical married opioid abuser (see Figure 1). The subject of the vignette varied only by gender (female vs. male) and parenthood status (parent vs. nonparent), resulting in four conditions: mother, female nonparent, father, and male nonparent. Both of the parents (mother and father conditions) were described as at-home parents and the primary caretakers of their children to ensure that both were viewed as having the same level of responsibility over their children. In all four vignettes, the subjects were described as becoming dependent on opioids through a prescription from a doctor; this detail was intended to control for the additional stigma associated with other precipitants such as recreational use of illicitly purchased opioid medications or heroin, one of the more prevalent opioid street drugs.⁵

Jane is a 33 year old married mother of two children, ages 6 and 11. Because her spouse travels for work, she is an at-home parent and the primary caretaker of her children. After having knee surgery 2 years ago, her doctor prescribed her opioid painkillers. She quickly became dependent on the pills, and after her first prescription ran out, she was unable to resist her cravings for more. She has continued to use opioids and as hard as she tries, she is unable to decrease her use or stop. Her excessive substance use causes her great distress and recently she lost her job because of it. Soon after, her spouse found an empty pill bottle and discovered her use, causing strain on their marriage. She now spends much of her time trying to acquire painkillers.

Figure 1. Vignette for the motherhood condition.

2.2.2 previous contact

The survey contained two questions assessing respondents' level of previous contact with individuals experiencing substance abuse and the nature of that contact. Participants rated their level of previous contact on a scale of 1 (no contact) to 5 (you yourself have a substance use problem). If any contact was indicated (a rating of 2 or higher), respondents were then asked to rate the nature of the contact (1=negative, 5=positive).

2.2.3 dangerousness rating

Respondents were asked to rate how dangerous they believed the hypothetical drug user in the vignette to be. Adopted from the scale used by Goodyear et al.,⁵ dangerousness was assessed on a 5-point scale (1=very dangerous, 5=very safe).

2.2.4 responsibility rating

Participants also rated the responsibility level of the hypothetical opioid abuser. Also adopted from Goodyear et al.,⁵ responsibility was rated from 1 (very irresponsible) to 5 (very responsible).

2.2.5 affect rating scale

To measure how survey respondents anticipated they would feel if interacting with the subject described in the vignette, five questions were adopted from Brown's Affect Scale for Substance Users (AS-SU).³ Each feeling was assessed on a 7-point scale: empathy (1=empathetic, 7=angry), sympathy (1=disgusted, 7=sympathetic), supportiveness (1=supportive, 7=resentful), comfort (1=apprehensive, 7=comfortable), and relaxation (1=relaxed, 7=tense). These were grouped into two subscales: the "Caring" attitude (the sum of ratings of empathy, sympathy, and supportiveness, with empathy and supportiveness items reverse-scored) and the "Anxious" attitude (the sum of ratings of comfort and relaxation, with comfort reverse-scored).

3. Results

3.1 Preliminary Analyses

To ensure that participants in the four conditions (mother, father, female nonparent, male nonparent) did not differ in terms of demographic variables, chi-square analyses and analyses of variance (ANOVAs) were performed. Testing revealed no significant differences across groups in age, gender, years of education, religion, marital status, race/ethnicity, or parental status.

To assess the internal consistency of the Affect Ratings subscales, reliability testing was conducted. The Caring subscale reliability was moderately high (Cronbach's alpha = 0.85), with the Anxious subscale reliability more modest (Cronbach's alpha = 0.75).

3.2 Data Analyses

To assess whether participants' dangerousness, responsibility, and affect (care and comfort) varied across the four conditions, ANOVAs were performed. Means and standard deviations for all measures, by condition, are shown in Table 1.

The measure of dangerousness had a theoretical range of 1 to 5, with lower numbers associated with higher levels of perceived dangerousness. The overall mean for dangerousness across conditions was only moderate ($M=2.85$), or slightly below the scale midpoint of 3, indicating that participants viewed the subject of the vignettes as just slightly more dangerous than safe.

The ANOVA comparing the dangerousness rating of the four conditions showed a significant difference across conditions, $F(3,411) = 2.77$, $p=0.041$. Post hoc testing revealed this was due to a significant difference between the male nonparent and mother conditions; the mean difference between these two conditions was 0.375 ($p=0.005$), with the male nonparent condition lower compared to the mother condition. This indicates that participants perceived male nonparents to be more dangerous than mothers.

The responsibility measure had a theoretical range of 1 to 5, with higher numbers indicating greater judgments of responsibility. The overall mean responsibility score across conditions was moderate ($M=2.83$), indicating that participants perceived the subject of the vignettes to be just slightly more irresponsible than responsible. The ANOVA revealed no significant differences across the four conditions in assessment of responsibility.

The Caring Affect subscale had a theoretical range of 1 to 21, with higher scores reflecting greater levels of empathy, sympathy, and supportiveness. The overall mean Caring Affect score ($M=14.11$) showed a modest level of caring toward the hypothetical substance abuser, exceeding the scale midpoint of 12. The theoretical range for the Anxiety Affect subscale was 1 to 14, with higher scores indicating greater levels of apprehension and tension. The overall mean Anxious Affect ($M=9.07$) indicated slightly more anxiety than comfort with the subject of the vignettes, exceeding the scale midpoint of 8.

ANOVAs were conducted separately for the two affect measure subscales. A statistically significant trend across conditions was found for Caring Affect, $F(3, 411)=2.32$, $p=0.075$. Post hoc testing revealed a significant difference

between the male nonparent ($M=13.58$) and female nonparent ($M=15.01$) conditions, $p=0.075$, indicating that participants viewed the female subject without children more sympathetically than the male subject without children. The ANOVA for Anxious Affect revealed no significant differences across conditions.

Table 1. Mean scores for dangerousness, responsibility, and affect by condition.

	Dangerousness	Responsibility	Care Affect	Anxious Affect
Mother (n=97)	$M=3.07$ (SD=0.88)	$M=2.90$ (SD=1.05)	$M=13.85$ (SD=4.09)	$M=8.84$ (SD=2.57)
Female nonparent (n=98)	$M=2.87$ (SD=0.97)	$M=2.88$ (SD=0.1.03)	$M=14.86$ (SD=3.93)	$M=8.93$ (SD=2.79)
Male nonparent (n=119)	$M=2.70$ (SD=0.95)	$M=2.76$ (SD=1.07)	$M=13.38$ (SD=4.13)	$M=9.39$ (SD=2.40)
Father (n=101)	$M=2.81$ (SD=1.05)	$M=2.82$ (SD=1.21)	$M=14.48$ (SD=4.36)	$M=8.98$ (SD=2.70)
Total (n=415)	$M=2.85$ (SD=0.97)	$M=2.83$ (SD=1.09)	$M=14.11$ (SD=4.15)	$M=9.05$ (SD=2.61)

4. Discussion

Overall, this study revealed only moderate levels of stigma towards the hypothetical opioid abusers in the vignettes. Participants tended to view the subject as only slightly dangerous and irresponsible, though they reported that they would feel somewhat anxious if interacting with the hypothetical opioid abuser. On the other hand, they also reported feeling notable levels of caring towards the subject. It is possible that this modest stigma is a result of the path to substance abuse described in the vignette. Becoming addicted to an opioid prescribed from a doctor may be more socially acceptable than other routes of addiction (e.g., recreational use of street drugs). Past research found that a hypothetical individual who became addicted to opioids as a result of a legal prescription was viewed as less dangerous and less irresponsible than an individual who became addicted to opioids as a result of recreational use with friends.⁵

Results also indicate that participants perceived male nonparents to be significantly more dangerous than mothers. Further, respondents reported significantly more caring for the female subject without children than the male subject without children. Similar results were found in a past study by Goodyear et al.⁵ that indicated that participants rated positive affect (concern and sympathy) towards a hypothetical female with opioid use disorder higher than for a hypothetical male with opioid use disorder. In contrast, past research examining perceived stigma in males and females experiencing substance abuse found no significant differences between the two groups.¹³ The findings of the present study may suggest that females and mothers are less stigmatized than males.

This study sample was recruited online, using the Amazon MTurk service. The choice to use MTurk appears to have been highly effective in obtaining a sample that is representative of the United States population. The Census estimates the population is 76.6% white, 13.4% African American or black, 1.3% Native American, 5.8% Asian American, 18.1% Hispanic or Latino, and 2.7% two or more races.¹⁵ Fewer participants of this study were white (70.4%), Hispanic or Latino (9.4%), or African American or black (6.3%) compared with Census data. Conversely, a slightly larger percentage of participants were Asian American (6.7%), Native American (2.4%), or multiracial (4.6%). The largest discrepancy between Census data and this sample is present in the Hispanic or Latino category. This may be at least partially explained by differences in data collection between the Census and this study. For the purpose of the Census, participants can identify as Hispanic or Latino in conjunction with any other race category.

In contrast, this study allowed each participant to choose only one racial/ethnic category which may have resulted in the higher percentage of participants identifying as multiracial.

Recent estimates suggest that approximately 10% of the United States population will experience a substance use disorder at some point during the life course.¹¹ Similarly, 8.2% of the sample in this study self-identified as having a substance abuse problem. This was an even higher percentage of the sample than the number of participants who reported no contact with an individual experiencing substance abuse (6.5%). Again, this suggests that the sample was strongly representative of the general population. Further, the number of respondents who identified as having a substance abuse problems could have led to lower levels of stigma. It is likely that substance abuse is more humanized and less stigmatized by someone who has personally experienced it.

Given such a representative sample, stigma levels may be more moderate than if the sample contained more participants from groups that tend to hold more highly stigmatizing attitudes. In past research, a significant positive correlation between participant age and stigma towards substance abusers was found.¹⁹ Substantially fewer participants of this study were 50 years old or older (n=78) than were below the age of 50 (n=336).

4.1 Limitations and Future Research

Although the MTurk service resulted in a representative population, one limitation of MTurk is that providing compensation to participants, albeit small, could potentially influence their responses. Further, the sample recruited through MTurk may hold less stigmatizing attitudes than a less representative one. Future research could be conducted to examine the perceptions of groups with more stigmatizing attitudes.

A further limiting factor was the measure used in this study. Using responsibility, dangerousness, and affect to measure stigma could exclude other definitions of stigma that may yield different results. The addition of other measures of stigma (e.g., social distancing) could provide a more comprehensive picture of stigma levels towards this population. Choosing to include doctor-prescribed opioids in lieu of other, potentially more stigmatized drugs such as heroin may also be a limitation. This path to substance abuse may be more socially acceptable, leading to lower levels of stigma. Future research on the impact of gender and parenthood on stigma towards individuals experiencing substance abuse should utilize alternative measures such as social distance scales or perceived parenting ability in order to further understand all facets of stigma towards these subpopulations.

Further, research on the effect of gender and parenthood on the public perception of other types of substance abuse beyond doctor-prescribed opioids should be investigated given other drugs of abuse may be more stigmatized. Studying the stigma towards abuse of other substances could yield different results and increase understanding of stigma within these subpopulations.

4.2 Implications

Understanding the nature of stigmatizing attitudes towards opioid abuse within the general population has implications for reducing barriers to treatment as well as increasing health and quality of life for this population. Reducing societal stigma via reduction measures could in turn decrease the deleterious effects associated with both societal stigma and the resulting internalized stigma. Given stigma is a barrier to seeking and completing treatment, reduction efforts could also have the ability to improve treatment outcomes.

While stigma did not differ dramatically by gender or parenthood status, participants had a tendency to have less stigmatizing attitudes towards females and female parents. It is possible males are viewed as more dangerous and deserving of less sympathy and care because of traditional gender role stereotypes. Cultural stereotypes that view women as weak, emotional, and irrational and thus, needing paternalistic care and control from others could lead to greater caring towards this subpopulation⁶.

Overall, the results of this study indicate that levels of stigma towards abuse of doctor-prescribed opioids are moderate. The lower amount of stigma associated with doctor-prescribed opioids compared with street opioids alone could explain this finding or the stigma towards this population could potentially be decreasing.⁵ It is possible that more favorable attitudes only apply to less stigmatized routes to substance abuse such as receiving addictive medications from a doctor and not to substance abuse as a whole. Alternatively, public perceptions of substance abuse may be shifting to become more caring and less stigmatizing. This could be a reflection of changing beliefs about the nature of addiction (e.g., understanding addiction as a disease instead of a personality flaw) or increased positive publicity of the opioid epidemic leading to more humanized view of substance abuse among the general public.

5. References

1. Ahern, J., Stuber, J., & Galea, S. (2007). Stigma, discrimination and the health of illicit drug users. *Drug & Alcohol Dependence*, 88(2), 188-196.
2. Baker, P. L., & Carson, A. (1999). "I take care of my kids" mothering practices of substance-abusing women. *Gender & Society*, 13(3), 347-363.
3. Brown, S. A. (2011). Standardized measures for substance use stigma. *Drug & Alcohol Dependence*, 116(1), 137-141.
4. Chavkin, W., & Breitbart, V. (1997). Substance abuse and maternity: The United States as a case study. *Addiction*, 92(9), 1201-1206.
5. Goodyear, K., Haass-Koffler, C. L., & Chavanne, D. (2018). Opioid use and stigma: The role of gender, language and precipitating events. *Drug and Alcohol Dependence*, 185, 339-346.
6. Haines, E. L., Deaux, K., & Lofaro, N. (2016). The Times They Are a-Changing ... or Are They Not? A Comparison of Gender Stereotypes, 1983–2014. *Psychology of Women Quarterly*, 40(3), 353–363.
7. Luoma, J. B., Twohig, M. P., Waltz, T., Hayes, S. C., Roget, N., Padilla, M., & Fisher, G. (2007). An investigation of stigma in individuals receiving treatment for substance abuse. *Addictive Behaviors*, 32(7), 1331–1346.
8. Mason, W., & Suri, S. (2012). Conducting behavioral research on Amazon's Mechanical Turk. *Behavior Research Methods*, 44(1), 1-23.
9. Medina, S., & Magnuson, S. (2009). Motherhood in the 21st Century: Implications for Counselors. *Journal of Counseling & Development*, 87(1), 90-96.
10. McHugh, R. K., Votaw, V. R., Sugarman, D. E., & Greenfield, S. F. (2018). Sex and gender differences in substance use disorders. *Clinical psychology review*, 66, 12-23.
11. National Institute of Health. (2015). 10 percent of US adults have drug use disorder at some point in their lives.
12. Rockhill, A., Green, B. L., & Newton-Curtis, L. (2008). Accessing substance abuse treatment: Issues for parents involved with child welfare services. *Child Welfare: Journal of Policy, Practice, and Program*, 87(3), 63–93.
13. Stringer, K. L., & Baker, E. H. (2018). Stigma as a barrier to substance abuse treatment among those with unmet need: An analysis of parenthood and marital status. *Journal of Family Issues*, 39(1), 3-27.
14. Substance Abuse and Mental Health Services Administration. (2015). Behavioral Health Trends in the United States: Results from the 2014 National Survey on Drug Use and Health. 2.
15. United States Census Bureau. (2017). U.S. Census Bureau QuickFacts: United States.
16. Verissimo, A. D. O., & Grella, C. E. (2017). Influence of gender and race/ethnicity on perceived barriers to help-seeking for alcohol or drug problems. *Journal of Substance Abuse Treatment*, 75, 54-61.
17. Villicana, A. J., Garcia, D. M., & Biernat, M. (2017). Gender and parenting: Effects of parenting failures on evaluations of mothers and fathers. *Group Processes & Intergroup Relations*, 20(6), 867-878.
18. Virokannas, E. (2011). Identity categorization of motherhood in the context of drug abuse and child welfare services. *Qualitative Social Work*, 10(3), 329-345.
19. Wohlford, G. (2019). Public Perceptions of Substance Abuse. *UNC Asheville Journal of Undergraduate Research*.