

Introduction

Postpartum Depression (PPD) is a type of mental health condition that occurs in many mothers after giving birth. According to the Mayo Clinic, PPD is a type of depression that symptoms can develop within the first few weeks after giving birth or up to a year after birth, and can last up to many months or longer [1]. Some symptoms of PPD include feelings of sadness, being unable to experience joy, difficulty bonding with the baby, mood swings, and thoughts of self-harm [2]. Symptoms can be mild to severe depending on different factors [3].

Approximately 1 in 8 mothers experience PPD [4]. However, teenage mothers are twice as likely to experience PPD compared to adult mothers [5]. It has been shown that postpartum depression (PPD) negatively affects teenage mothers. Teenage mothers, as defined by the Centers for Disease Control and Prevention (CDC), fall between the ages of 15 through 19, and are at a higher risk to develop PPD which has been linked to their social determinants of health [6,7]. A United States study that examined 660 mothers at their 6 month postpartum, found that 26.9% of adolescent mothers experienced mild depression, 11.3% experienced moderate depression, and 3.8% experienced severe depression [8].

Social determinants of health (SDOH) may be attributed to the prevalence of PPD impacting teenage mothers. SDOH are non-medical factors that individuals are born into or live with [9]. SDOH influences individuals' health outcomes. The study focuses on whether SDOH negatively impact PPD in teenage mothers. The SDOH that are focused on are stigma, lack of social support and socioeconomic status.

Methods and materials

The qualitative research study consisted of a sample size of 5 key informant participants. The participants were mothers ages 20 through 50 that reside in San Joaquin County. Of the

participants in the study, Caucasian (n=1), Hispanic (n=3) and African American (n=1) backgrounds were represented. All participants were formerly teenage mothers. Each interview lasted approximately 20 minutes and consisted of 12 questions that are demonstrated in Fig. 1. There were 2 demographic questions and 10 questions regarding the mothers' experiences with PPD, socioeconomic status, stigma and social support.

Interview Questions (Figure 1)
<p>Demographics:</p> <ol style="list-style-type: none"> 1. How old are you? 2. What race do you identify with?
<p>Interview:</p> <ol style="list-style-type: none"> 1. How old were you when you gave birth as a teenager? 2. Did you experience postpartum depression (PPD) after childbirth? If so, which symptoms did you experience? 3. Did you receive behavioral health services? If so, were you clinically diagnosed? 4. Did you struggle with your mental health before pregnancy? If so, what were you diagnosed with? 5. Did you feel judged or shamed by others for being a teenage mother? If so, how? 6. How did that impact your mental health? 7. Did you have any social support after childbirth? (Family, friends, child's father) 8. How did that impact your mental health? 9. Which socioeconomic status did you identify with at that time? 10. How did that impact your mental health?

The data was collected online using the Zoom application. The researcher reached out to key informant participants to schedule a set date and time to be interviewed. Each interview lasted approximately 20 minutes. The interviews were recorded using Zoom and then transcribed. Data was stored on a password protected computer. The specific data analytical approach used throughout the coding process was Thematic Analysis. The researcher started the process by listening to the recordings and reviewing the interview transcripts. The researcher then reviewed the transcripts to get familiar with the data. Once familiar with the data, the

researcher searched for themes and patterns. Codes were then created based on the themes and patterns identified.

Results

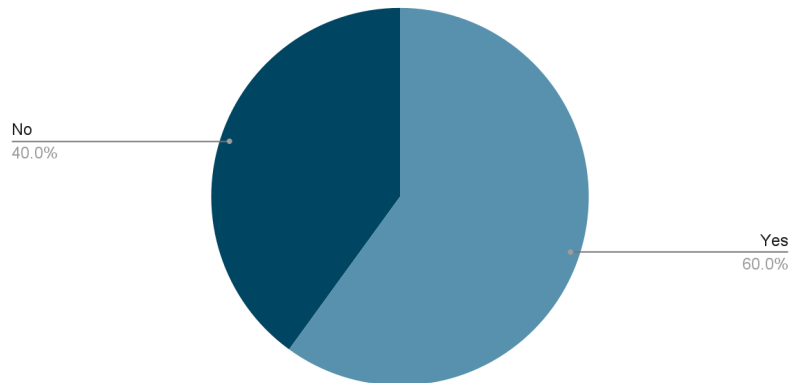
The analysis of data using thematic analysis revealed two prominent themes: "judgment" and "lack of support from the child's father."

When participants were asked whether they felt judged or shamed by others for being teenage mothers, all respondents answered in the affirmative. Within this theme of judgment, it became evident that the sources of judgment varied. Three participants disclosed that they felt judged solely by strangers they encountered in public settings. One of them stated, "I would always catch people staring at me and whispering when I would be out somewhere with the baby". Additionally, one participant expressed feeling judged specifically by healthcare providers, recounting, "the doctors and nurses made me feel like I didn't know what I was doing because I was a young mom."

Regarding social support after childbirth, all participants shared a common experience: the absence of support from their child's fathers. One participant went further to describe a complete lack of involvement from the child's father, including throughout her pregnancy. She explained, "Once I got pregnant, I tried to get away from him because there was a lot of domestic violence involved in the relationship."

When questioned about postpartum depression (PPD) following childbirth as teenage mothers, three out of the five participants acknowledged experiencing PPD, while the remaining two reported not experiencing it. Fig. 2 visually represents the participants' responses:

Number of participants experiencing PPD after child birth.
(Figure 2)



A unanimous "yes" response emerged when participants were asked various questions throughout the interview that illuminated the impact of their roles as teenage mothers on their mental health. For instance, when inquired about their socioeconomic status during their teenage motherhood, four participants identified with a low socioeconomic status, while one participant identified with a middle socioeconomic status. Their collective response indicated that their mental health was adversely affected by the stress associated with providing for their infants. One participant reported, "It was stressful getting everything the baby needed because I wasn't even working at the time". These findings strongly support the notion that social determinants of health play a significant role in the negative impact of PPD among teenage mothers.

Discussion

Through the data collected in the interviews in this study, PPD was prevalent among more than half of the participants during their experiences as teenage mothers. Additionally, all mothers reported that their socioeconomic status had a detrimental impact on their mental health. The participants' Social Determinants of Health (SDOH) were closely linked to the prevalence of PPD. However, it's important to acknowledge a limitation inherent in the study - the relatively small sample size of only five participants. Expanding the sample size might have yielded

different data outcomes, and therefore, the findings should be interpreted with this limitation in mind. However, the findings in this study for the rate of PPD occurrence was consistent with the current statistics in the literature for teenage mothers.

For future research, several recommendations emerge. Firstly, researchers should consider participants' living conditions. For instance, exploring whether they were residing with their parents, the father of their child, or independently during their teenage motherhood could shed light on the potential influence of living conditions on their socioeconomic status.

Secondly, researchers should inquire about participants' cultural backgrounds and their perspectives on mental health. Understanding how cultural views on mental health can impact a mother's experience with PPD is essential for providing culturally sensitive support and interventions.

A third recommendation pertains to the timing of participant interviews. Conducting interviews with teenage mothers while they are still in the midst of their experiences can offer valuable insights. Such an approach may lead to more accurate and immediate information sharing, reducing the likelihood of participants forgetting or omitting certain details in their accounts.

Social Determinants of Health (SDOH) can exert a profound negative impact on individuals, particularly teenage mothers, and contribute to the development of mental health conditions like postpartum depression (PPD). It is imperative to raise awareness of this issue and work towards the development of more accessible resources to support teenage mothers in navigating the challenges posed by their unique circumstances.

Conclusion

In summary, the findings in this study support the notion that Social Determinants of Health (SDOH), specifically encompassing stigma, lack of social support, and socioeconomic status, exert a negative influence on postpartum depression (PPD) among teenage mothers. The data collected within this study highlighted the adverse effects on the participants' mental health during their teenage motherhood journeys. It was evident that the participants faced diverse challenges stemming from their socioeconomic status, which invariably led to negative consequences for their mental well-being. Financial hardships often confronted teenage mothers due to their youth and unemployment, exacerbating the stress associated with parenthood.

The prevalence of judgment and stigma experienced by more than half of the participants was another significant finding. The social stigma surrounding teenage motherhood contributed to the impact on their mental health, stressing the importance of addressing societal perceptions and support structures. Importantly, even among participants who did not report experiencing PPD, the data revealed that their mental health was still adversely affected by the challenges posed by their Social Determinants of Health. Future considerations need to be made for a holistic and comprehensive approach to supporting the mental health and well-being of teenage mothers, encompassing not only PPD but also the broader range of factors that can affect their mental health.

References

1. Mayo Foundation for Medical Education and Research. (2022, November 24). Postpartum depression. Mayo Clinic.
<https://www.mayoclinic.org/diseases-conditions/postpartum-depression/symptoms-causes/syc-20376617>
2. MediLexicon International. (n.d.). *Postpartum depression: When it starts, early warning signs, and more*. Medical News Today.
<https://www.medicalnewstoday.com/articles/when-does-postpartum-depression-start#early-warning-signs>
3. Mayo Foundation for Medical Education and Research. (2022, November 24). *Postpartum depression*. Mayo Clinic.
<https://www.mayoclinic.org/diseases-conditions/postpartum-depression/symptoms-causes/syc-20376617>
4. Centers for Disease Control and Prevention. (2022, April 29). *Depression during and after pregnancy*. Centers for Disease Control and Prevention.
<https://www.cdc.gov/reproductivehealth/features/maternal-depression/index.html>
5. Nall, R. (2016, September 19). Effects of teenage pregnancy: Mental health. Healthline.
<https://www.healthline.com/health/pregnancy/teenage-pregnancy-effects>
6. Hodgkinson, S., Beers, L., Southammakosane, C., & Lewin, A. (2014). Addressing the mental health needs of pregnant and parenting adolescents. *Pediatrics*, *133*(1), 114–122.
<https://doi.org/10.1542/peds.2013-0927>
7. Centers for Disease Control and Prevention. (2021, November 15). *About teen pregnancy*. Centers for Disease Control and Prevention. <https://www.cdc.gov/teenpregnancy/about/index.htm>
8. Lanzi, R. G., Bert, S. C., & Jacobs, B. K. (2009). Depression among a sample of first-time adolescent and adult mothers. *Journal of Child and Adolescent Psychiatric Nursing*, *22*(4), 194–202. <https://doi.org/10.1111/j.1744-6171.2009.00199.x>

9. Centers for Disease Control and Prevention. (2022, December 8). *Social Determinants of Health at CDC*. Centers for Disease Control and Prevention. <https://www.cdc.gov/about/sdoh/index.html>