

DEPRESSION SCREENING PRACTICES OF PRENATAL GENETIC COUNSELORS

By

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## ABSTRACT OF THE THESIS

### Depression Screening Practices of Prenatal Genetic Counselors

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Prenatal depression is a common problem for pregnant women, affecting up to 15% of women with even higher rates in low-income countries, and can have negative effects on the health and wellbeing of both mother and child. Women referred to a prenatal genetic counselor may be experiencing stressors such as an increased risk of aneuploidy, and may need to make important, time-sensitive decisions regarding their pregnancy. It is well established that depression can negatively impact the decision-making process, and the American College of Obstetricians and Gynecologists (ACOG) recommends that all healthcare providers perform depression screening for patients during the prenatal period. Therefore, we examined the methods prenatal genetic counselors are using to assess for depression in their patients as well as their opinions on this topic.

We found that while 60.0% of respondents believe addressing depression in the context of the prenatal genetic counseling session is important, only 30.4% routinely do so. This suggests the existence of barriers that may be hindering some genetic counselors from obtaining this information from patients. These barriers include the social stigmatization of openly discussing mental health, discomfort on the part of the patient,

and a lack of time in the counseling session. Additionally, only 53.2% of respondents feel confident in their abilities to identify and address symptoms of depression in a patient, and only 36.2% are aware of the ACOG guidelines regarding depression screening. Awareness of the ACOG guidelines was found to be significantly correlated with confidence in one's ability to address depression, and likelihood to discuss protective mental health factors with patients. These results indicate the need for more education and awareness regarding the utility and necessity of depression screening in the prenatal genetics setting.

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## Introduction

Depression during pregnancy, known as prenatal, perinatal, or antenatal depression, is a serious condition that can negatively impact pregnant women. The prevalence of depression during pregnancy ranges between 7-15% in high-income countries, with even higher rates occurring in low-income countries (Gelaye et al., 2016). Multiple risk factors for prenatal depression have been established. Anxiety, a prior history of depression, life stressors, having Medicaid insurance, and poor social support all have been significantly associated with an increased risk for depression during pregnancy. Additionally, unplanned pregnancy, lower education and socioeconomic status, smoking, domestic violence, and being single or having a poor relationship status have also been correlated with prenatal depression (Lancaster et al., 2010).

Prenatal depression is associated with worse outcomes for both mother and child. There is an increased risk of reduced fetal movement in utero, low birth weight and premature birth, and adverse pregnancy outcomes in general. Additionally, perinatal depression has been linked with a reduced response to stimuli, poorer development, and more difficult temperaments in infancy, as well as compromised mother-child attachment (Putnam et al., 2016, Stuart-Parrigon & Stuart, 2014). Symptoms of prenatal depression can also continue into the postpartum period, which is significant because it can lead to negative effects on infants' cognitive and motor development, and is associated with emotional and behavioral problems in childhood (Stuart-Parrigon & Stuart, 2014). Palladino et al. also found that perinatal depression increases the risk for maternal

suicide, which is a substantial cause of mortality for women within one year post-partum (2015).

Women who have been referred to a prenatal genetic counselor are at an increased risk for depressive symptoms due to life stressors, including an increased risk of aneuploidy or other pregnancy complications (Suzomori et al., 2014, Hippman et al., 2009). Depression has been noted to have a negative impact on the ability to make decisions – the neurocognitive functions involved in this process are impaired in depressed individuals, resulting in a reduced ability for logical decision-making (Iznak et al., 2016). Also, symptoms of depression such as anhedonia or an anxious mood can contribute to sub-optimal decision-making, particularly in uncertain or complicated situations (Harlé et al., 2017). Many important and time-sensitive decisions may need to be made in a prenatal genetic counseling setting, regarding processes such as invasive diagnostic testing and pregnancy termination, and the presence of depressive symptoms may negatively affect a patient's ability to make these decisions.

The American College of Obstetricians and Gynecologists (ACOG) recommends that healthcare providers who work with pregnant patients perform an assessment of mood during pregnancy using a standardized screening tool (2018). Standardized depression screens that have been validated for use during pregnancy, such as the PHQ-9 (Kroenke, Spitzer, & Williams, 2001) and the Edinburgh Postnatal Depression Scale (Rubertsson et al., 2011), are effective at accurately identifying pregnant women with depression. When combined with appropriate support and clinical interventions, screening increases the likelihood of symptom remission and response to treatment (Siu et al., 2016). Therefore, it would be beneficial for all prenatal genetic counselors to

perform some type of screening or assessment for depression in pregnant patients, irrespective of the presence of a family history of depression. Additionally, a previous study by Nimrichter has shown that pregnant women are open to discussing mental illness in general in a prenatal setting, regardless of a personal or family history of a mental health condition (2018).

The adverse effects of prenatal depression on both mother and child and the value of depression screening for the perinatal population are both well established in the current literature (O'Connor et al., 2016). However, no study has described the types of evaluations and screenings prenatal genetic counselors are using to assess for depression in their patients, or the real or perceived barriers that may be inhibiting them from doing so. This study aims to assess the current state of practice by surveying prenatal genetic counselors to discover their methods and opinions regarding screening for depression in their patients.

## **Methods**

### **1. Study Design**

An anonymous online survey on Qualtrics.com was emailed to genetic counselors via the National Society of Genetic Counselors' Student Research Surveys and Reminders weekly email blast. The survey was composed of 21 multiple choice and short answer questions (see Appendix). Genetic counselors who currently work in a clinical prenatal setting, or who have previously worked in that setting, were eligible to complete the survey. The initial email invitation was sent out in October of 2019, and a reminder email was sent out via NSGC four weeks later, one week prior to the close of the survey. This study was approved by the Rutgers University Institutional Review Board.

### **2. Participants**

The sample for this study was composed of members of the National Society of Genetic Counselors. The 2019 Professional Status Survey indicated that about 5,000 genetic counselors work in the United States and Canada. Eligibility criteria included genetic counselors that currently or in the past have worked in a clinical prenatal genetics setting. Genetic counselors that report never working in a clinical prenatal genetics setting were excluded from participation.

### **3. Survey Instruments**

This survey consisted of 21 multiple-choice and short answer questions developed by the research team, and distributed using Qualtrics software. Demographic information



collected included the respondents' year of graduation from a certified Genetic Counseling program. The questions covered respondents' education received and comfort regarding assessing symptoms of depression in a patient, how they assess or screen for depression in their patients, their experiences and methods of counseling individuals who report depressive symptoms, opinions on barriers to obtaining information about depression in their patients, and their awareness of ACOG guidelines regarding depression screening. Participating in the study and answering each question was voluntary, thus, respondents could choose to skip any questions they did not wish to answer. Therefore, the total number of responses for some questions is less than the 46 represented in the study sample.

#### 4. Analysis

Data analysis was performed using Qualtrics Stats iQ software. For each survey question, frequencies were calculated for the responses. For questions with the option to write-in an answer, responses were coded into themes. In order to compare some items, Fisher's Exact and Chi-squared tests were conducted. Statistical significance was assessed using p-values at the .05 level.

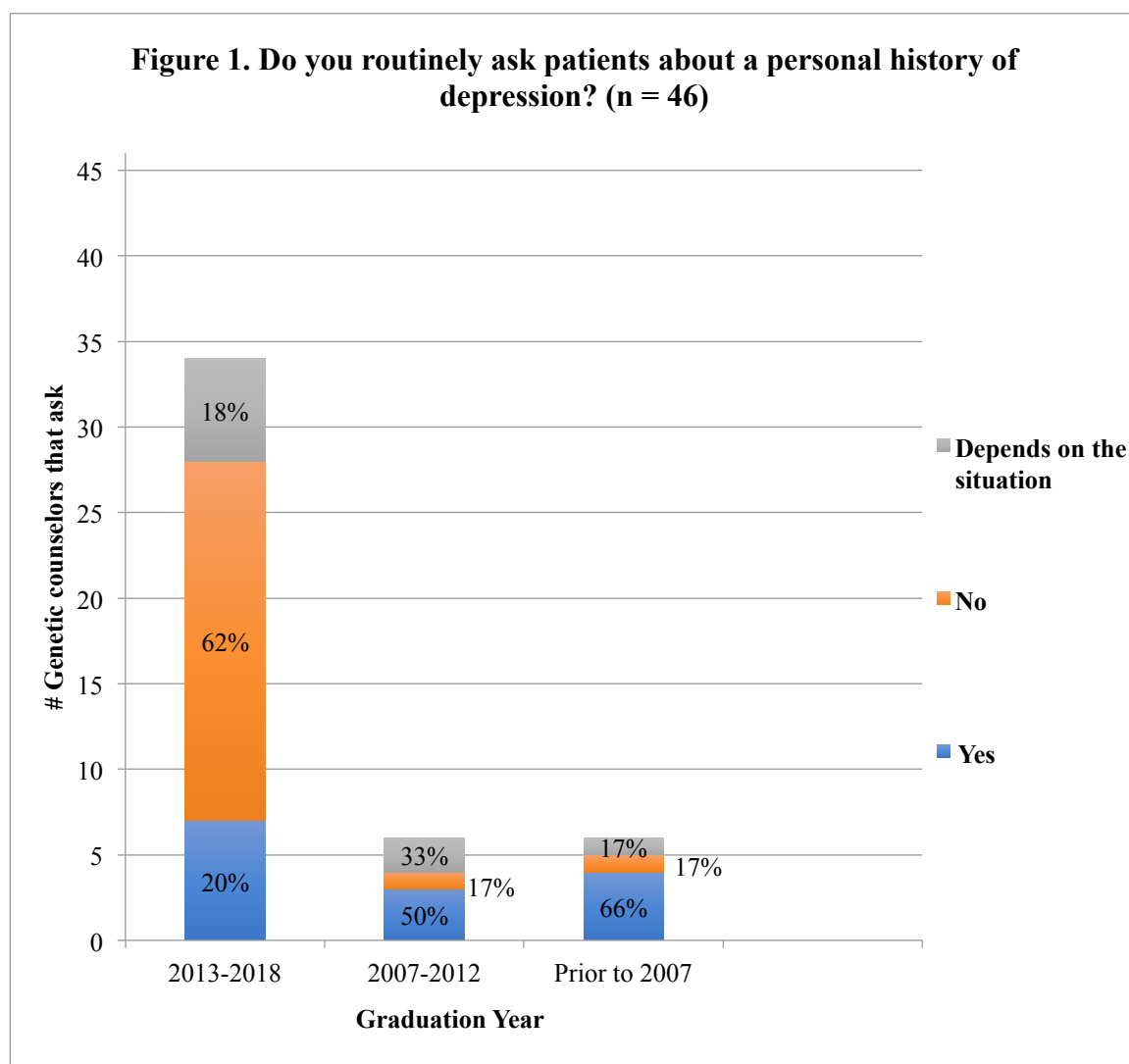
## Results

In total, 57 survey responses were recorded. Of these, 46 individuals reported that they have seen patients in a clinical prenatal genetics setting, rendering them eligible to complete the survey in its entirety ( $n = 46$ ) (see Appendix). The reported graduation years from genetic counseling programs ranged from 1979 to 2018, with the majority of the respondents graduating between 2013 and 2018. Most respondents indicated they had received some type of graduate education regarding assessing for depression in a patient, with the most common type of education being lectures, followed by clinical experiences and role-playing exercises.

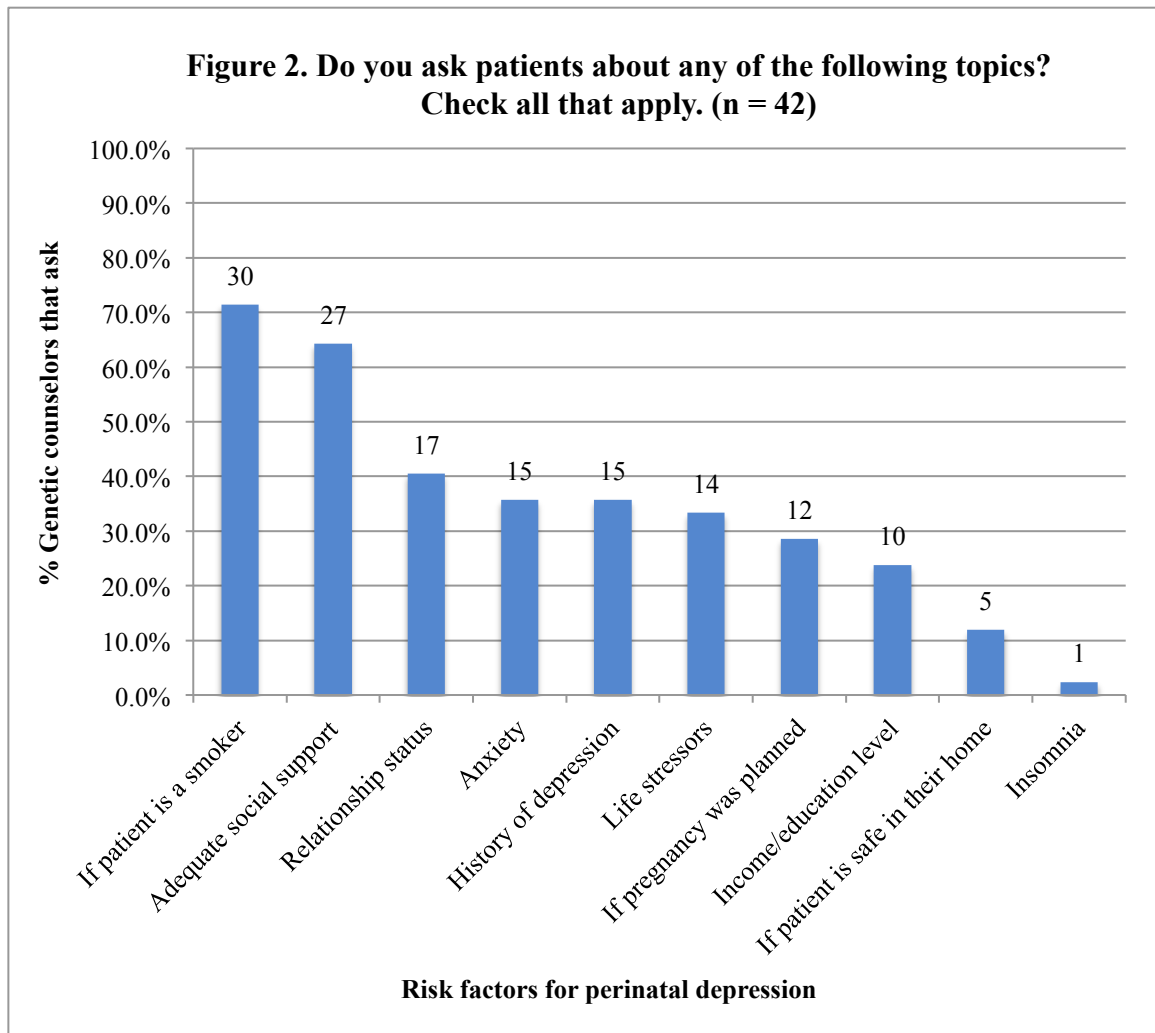
Despite the majority of respondents having had some type of education or training on how to assess for symptoms of depression, only about half (53.2%) of respondents stated that they felt confident in their ability to recognize depression and address the topic of depression with patients. Additionally, a smaller proportion (17.4%) of respondents said that they find discussing risk factors for depression can be more worrisome for patients than it is helpful.

60.0% of respondents stated that they believe addressing depression is important in a prenatal genetic counseling setting. However, only 30.4% reported that they actually do routinely ask patients about a personal history of depression (Fig. 1). Several respondents stated that they typically do not ask patients about depression directly, but this information may be indirectly revealed when asking about medications the patient is taking, or that they usually have already received information pertaining to the patient's mental health from the referring provider. Only four respondents indicated that they

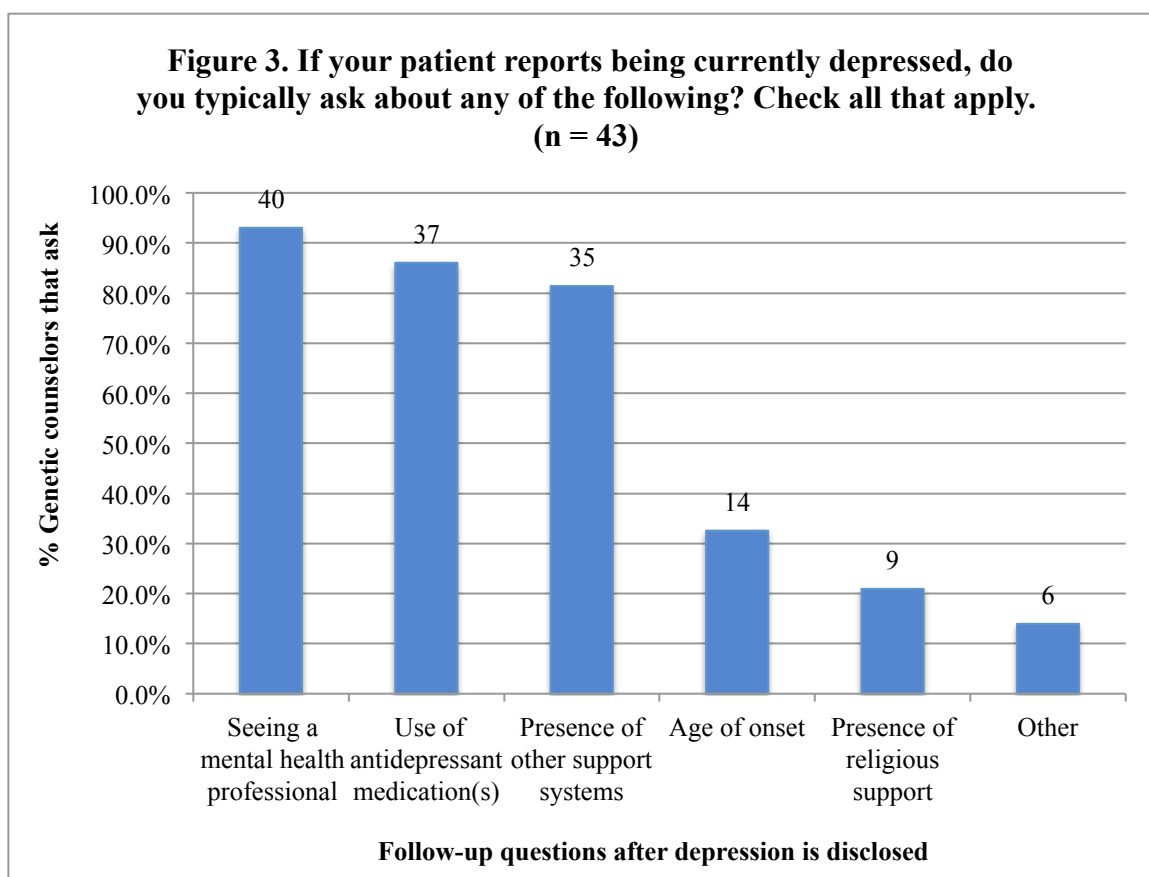
routinely use a validated depression screening measure to investigate symptoms of depression in their patients. Specific measures used include the PHQ-9, Beck Depression Inventory, and the Edinburgh Postnatal Depression Scale.



When assessing what perinatal depression risk factors prenatal genetic counselors inquire about, about 70% stated they ask about smoking and adequate social supports, and about 40% ask about relationship status (Fig. 2). However, only about one-third will ask about a personal history of depression or anxiety.



The majority (87.0%) of individuals have had a patient spontaneously disclose a personal history of depression to them. We questioned genetic counselors on what they ask of their patients, if the patient reports being currently depressed. Most ask if they are currently seeing a mental health professional, if they are using antidepressant medications, and about the presence of other support systems. (Fig. 3) The option to write-in an answer was included, and response themes included: if symptoms are being managed adequately, mood changes during pregnancy, the presence of a family history of depression, and any desire to be connected to other sources of support.

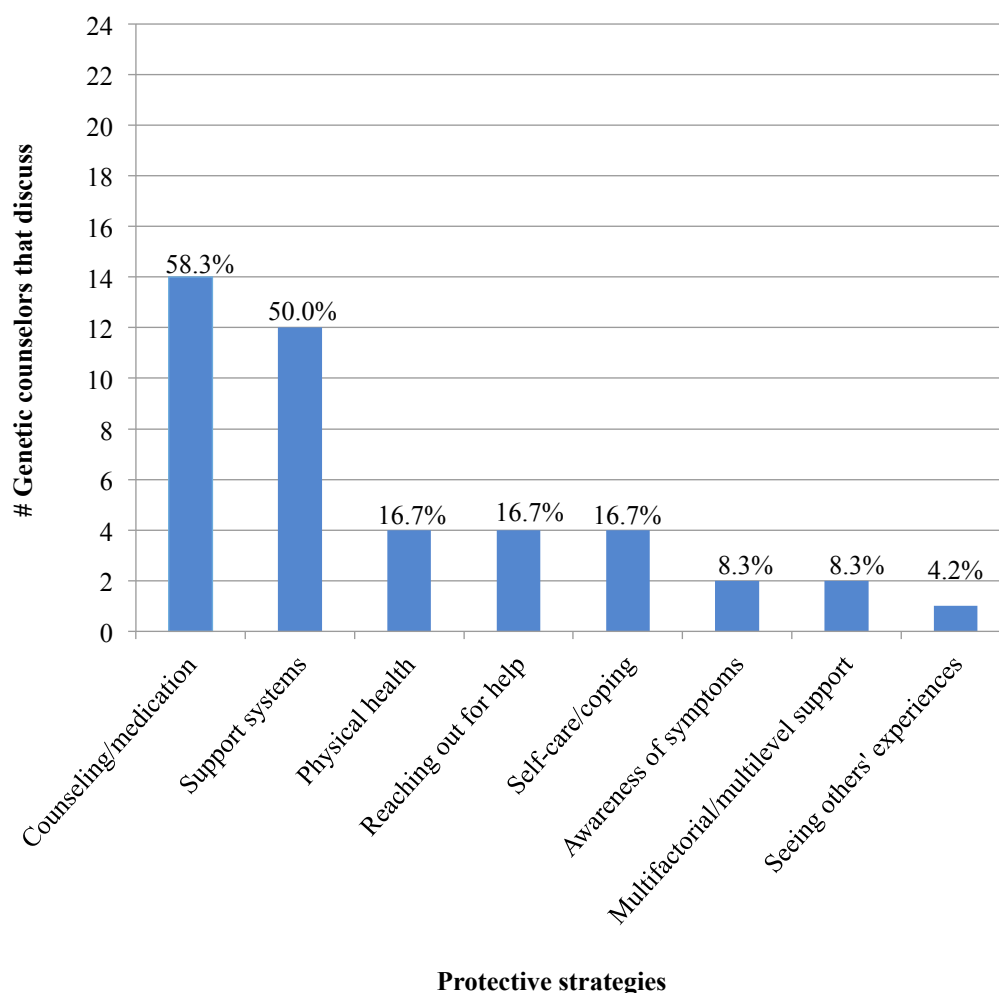


74.5% of respondents reported that they adjust their counseling if they become aware of symptoms of depression in their patient. Out of that group, most (78.8%) reported that they have been able to provide referrals to a mental health provider, and only 17.6% reported that they have given educational information to patients with depression. Out of genetic counselors that receive information from the referring provider relating to the patient's mental health, such as a depression screen, 69.0% incorporate that information into their counseling session.

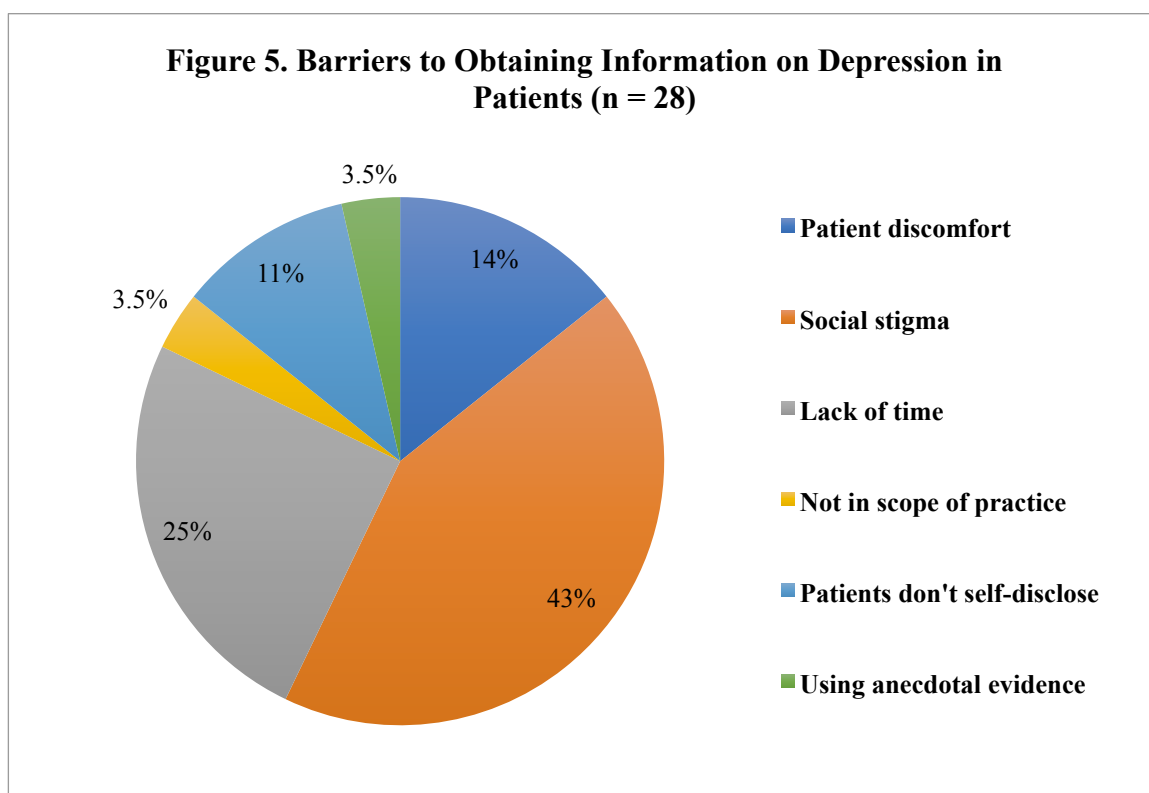
Approximately 60% (28/46) of all respondents reported that they discuss with their patients different strategies to protect their mental health, and 24 respondents went on to describe the strategies they discuss (Fig. 4). The most prevalent themes in these responses included the utility of mental health counseling or medication, and the

importance of maintaining adequate support systems. Additionally, many genetic counselors stressed the necessity of both patients and their partners being aware of the signs and symptoms of perinatal depression, and subsequently reaching out for assistance if needed. Other respondents indicated that they discuss the multifactorial nature of mental illness and need for multilevel support, the importance of having good self-care strategies, and the beneficial effects of being in good physical health, including diet and exercise. One respondent noted that it can be helpful for patients to talk with other individuals who have been in similar situations.

**Figure 4. Protective strategies for mental health discussed with patients (n = 24)**



63.0% of respondents (29/46) feel that there are significant barriers to obtaining information about depression in their patients, and 28 respondents went on to describe what these barriers are (Fig. 5). Major themes in these responses included social stigmas and taboos surrounding openly discussing mental health concerns, and the desire to avoid discomfort on the part of the patient. Additionally, many genetic counselors noted a lack of time in their sessions to address additional concerns outside of the primary indication for referral. A few respondents stated that since patients may not self-disclose information relating to their mental health, they may miss out on obtaining this information. One respondent felt that it is not within the scope of practice of a genetic counselor to fully discuss this topic with patients, and one expressed that since they do not use validated screening tools, they are only relying on anecdotal evidence from the patient, which may not be entirely objective.



Finally, only about one-third (36.2%) of participants were aware of the American College of Obstetricians and Gynecologists' guidelines suggesting that all healthcare providers who provide care during the obstetric period should be screening for depression in their patients. We assessed the relationship between participants who reported that they are aware of ACOG's guidelines relating to depression screening, and whether or not those participants discuss with their patients strategies to protect their mental health, and found that they were significantly more likely to have those discussions (Fisher's exact test  $p = .03$ ). Additionally, those who were aware of the guidelines were significantly more likely to feel confident in their abilities to address depression with their patients (Fisher's exact test  $p = .03$ ). Interestingly, while knowledge of the guidelines appeared to be associated with a higher likelihood of routinely asking patients about depression, this correlation was not strong enough to be statistically significant (Fisher's exact test  $p = .16$ ). Genetic counselors that graduated prior to 2013 were also more likely to routinely ask patients about a personal history of depression, although not significantly so ( $X^2 = 8.7$ ,  $df = 4$ ,  $p = .07$ ).

While the relationships were not statistically significant, out of those participants who reported that they receive information about their patients' mental health from a referring provider, those who were aware of ACOG guidelines were comparatively more likely to incorporate that information into their counseling sessions (Fisher's exact test  $p = .10$ ). Also, those who felt confident in talking about depression with their patients were comparatively more likely to discuss strategies to help protect their mental health (Fisher's exact test  $p = .25$ ).



## Discussion

This study is the first, to our knowledge, to evaluate the methods and approaches prenatal genetic counselors are taking to screen for symptoms of depression in their patients, as well as their opinions on this aspect of patient care. Overall, we found that the majority of respondents agree that screening for depression is important in the setting of the prenatal genetic counseling session. While some expressed opinions regarding the scope of practice of a genetic counselor – whether the genetic counselor should address this, or if other providers should be the ones to routinely address this topic – the general sentiment was that it is still a necessary part of prenatal patient care in the context of genetic counseling.

Interestingly, only about one-third of respondents reported that they actually routinely inquire about depression in their patients. Considering that most respondents stated that they have had patients disclose a personal history of depression to them, it is surprising that more genetic counselors do not routinely do this. There are several potential explanations for this phenomenon. Despite most respondents receiving graduate education or training on assessing for depression in a patient, only half actually feel confident in their abilities to recognize and address the symptoms of depression – a fraction even felt that discussing risk factors is more worrisome for patients than it is helpful. This could be due to the amount or the nature of the education received regarding depression assessment, but certainly highlights the importance for more robust education on this topic. A lack of confidence in one's ability to effectively identify patients who are displaying depressive symptoms and subsequently counsel them appropriately almost

certainly is a contributing factor to the lack of screening and assessment for depression in these clinical settings.

The perception of barriers to obtaining information about the mental health status of patients likely also plays a role in this situation. Most respondents agreed that such barriers do exist, and responses overwhelmingly echoed the sentiment that there are still social stigmas surrounding openly discussing the topic of mental health, even with a healthcare provider. Despite prior research by Nimrichter showing that pregnant women are, in general, open to discussing mental health concerns in the setting of prenatal healthcare (2018), it is clear that many prenatal genetic counselors feel that addressing this topic can cause discomfort on the part of the patient. While establishing a comfortable rapport with a patient is an obvious goal of the genetic counseling session, there are multiple topics commonly covered in a prenatal setting that are associated with social stigmas and could lead to patient discomfort, such as invasive diagnostic testing and pregnancy termination. Genetic counselors are uniquely trained to address difficult matters in an empathetic fashion, so it is surprising to find that concerns over social stigma may be preventing genetic counselors from fully addressing this topic.

More than one respondent stated that patients tend to not self-disclose a history of depression, and this was a barrier that prevented them from obtaining information. A main component of the genetic counseling session is interviewing patients about their personal and family histories in order to have a meaningful discussion tailored to their medical and psychosocial needs. Very rarely do patients freely disclose all the information we may need unprompted; more realistically, the genetic counselor is the one who shapes the conversation with meaningful questions to obtain the necessary

information to effectively counsel a patient. It is therefore somewhat problematic that a tendency for patients to not spontaneously disclose this information is considered to be a barrier to obtaining important information about a patient's mental health status.

Additionally, obtaining information about a patient's mental health status in order to properly address this topic and provide any necessary referrals is absolutely within the genetic counselor's scope of practice, in order to help promote the psychosocial well-being of our patients and prevent consequences of untreated perinatal depression (Putnam et al., 2016, Stuart-Parrigon & Stuart, 2014).

The issue of time is also a considerable barrier that many genetic counselors experience when it comes to performing some type of assessment for depression. Many genetic counselors have busy clinic schedules that can be subject to change, particularly in the setting of a prenatal clinic where concerns such as positive test results or ultrasound anomalies may prompt last-minute additions onto the schedule. Genetic counselors will often need to prioritize a patient's concerns in a session, meaning that issues that are not the primary referral indication may not be fully explored and addressed. While this is a common obstacle that many genetic counselors face in all different settings, there are certainly ways to adapt to it, such as utilizing validated tools for depression screening or providing patients with written materials containing information and local resources that they can read on their own time.

It is also important to note the distinction between being able to correctly assess and identify patients who are displaying symptoms of depression and need further counseling, and simply addressing the topic of depression in a session if the patient or their referring provider is the one to first disclose the existence of such a problem.

Regardless of how this information is obtained, whether the patient or their referring provider discloses it or if the genetic counselor identifies symptoms of depression in a patient, most – but not all – genetic counselors in our sample are adapting their counseling strategies to incorporate this information into the session.

Awareness of ACOG guidelines regarding depression screening in the prenatal healthcare setting appeared to predict some of the approaches prenatal genetic counselors take to address depression with their patients. Most notably, confidence in one's abilities to address depression as well as likelihood to discuss protective mental health strategies with patients was correlated with awareness of the guidelines. This could be due to several different reasons. It is possible that individuals who are aware of the guidelines are more likely to therefore be cognizant of the value of depression assessment in this setting. Genetic counselors who routinely discuss depression, or those who at least recognize the importance of it being addressed in the context of perinatal healthcare, may feel more confident in actively talking about this topic. It's also possible that individuals who are aware of these guidelines have a preexisting background or interest in mental health in general, and therefore would be more likely to bring up depression in a session anyway, since it is something they are knowledgeable about. A similar explanation could be true regarding the higher likelihood of these individuals to share protective mental health strategies with their patients. A genetic counselor that has a broader knowledge of mental health in general may place more emphasis on the benefits of engaging in protective factors, such as mental health counseling or a healthy lifestyle.

While awareness of ACOG guidelines did appear to be related to some concepts we addressed in our survey, it did not, interestingly, significantly predict the likelihood of

a genetic counselor to actually routinely perform depression screening for their patients. This highlights the reality of the barriers that most genetic counselors believe exist in the field when it comes to obtaining information about and openly discussing patient depression. Some barriers, such as a concern that a patient will feel there is social stigma around openly discussing depression, may be more easily overcome than others, such as a packed clinic schedule with limited time slots for each patient. Clearly, a certain proportion of genetic counselors are aware of these recommendations, yet various obstacles still lie in the way of accomplishing it.

One individual reported that they feel addressing depression is important, if it begins to interfere with the counseling and decision-making process. Interestingly, this was the only response that alluded to how depression can have a detrimental effect on decision-making capabilities. Depressed individuals tend to undergo more decisional conflict when faced with a decision they need to make (Paulus & Yu, 2012), and a negative emotional state can alter an individual's goals and perceptions of risk (Wang et al., 2014) – two concepts that are vital in a genetic counseling session. Considering there is substantial literature detailing the negative effects depression can have on the decision making process (Iznak et al., 2016, Harlé et al., 2017, Paulus & Yu, 2012, Wang et al., 2014), it would be advantageous for genetic counselors to at least be aware of the presence of depression in their patients, and to have an appreciation for how these individuals may need more tailored counseling when it comes to assisting them in decision-making.

There are some limitations to this study, namely that there was a small sample size – the 46 individuals who completed the survey in its entirety represent about 3.2% of

the estimated prenatal genetic counselor population. We therefore do not know if our sample is truly representative of the practices of the majority of prenatal genetic counselors in this country, additionally, a small sample size makes it harder to ascertain any significant relationships. Therefore, it is difficult to say to what degree these results can be generalized to the entire population of prenatal genetic counselors. Having an extended period of data collection as well as additional survey advertising methods may have encouraged more genetic counselors to participate. Future studies may assess genetic counselors outside of the prenatal field, including those who practice with pediatric or oncology populations, in order to identify any differences between the screening practices of different subspecialties. Another important area of future research could focus on validating specific educational strategies, either during genetic counseling programs or as part of continuing education, on how to appropriately assess for and respond to depression in patients. Similarly, future studies may assess the abilities of practicing genetic counselors in all specialties to accurately identify symptoms of depression in patients. As our sample was self-reporting their abilities to both assess and respond to depression in patients, it would be useful to further separate out the topics of:

- 1) Accurately assessing and identifying patients who may have depression, and 2)

Addressing the topic of depression when it is introduced by a patient or their referring provider, as there are distinct differences between these skills that were not fully captured by this study. Finally, more detailed investigation of the barriers that are hindering genetic counselors from fully assessing for depression would be a valuable way to obtain more insight into this matter.

The current literature strongly supports the utility of perinatal depression screening. Pregnant women are largely accepting of depression screening in the prenatal setting (Brealey et al., 2010), and screening increases the rate of detection and subsequent treatment (Avalos et al., 2016). Avalos et al. have also shown that perinatal depression is likely underdiagnosed and may not be recognized by a healthcare provider, as patients might not voluntarily report any symptoms (2016). Since many genetic counselors state they do not have confidence in their abilities to effectively identify depressive symptoms in their patients, using a validated screening tool such as the PHQ-9, Edinburgh Postnatal Depression Scale, or Beck Depression Inventory is a logical tactic to replace any gaps in knowledge and to ensure that patients do not miss out on needed interventions. In the case of a patient needing further psychological evaluation, the genetic counselor would need to have a listing of referrals to provide to the patient. Additionally, discussing well-researched protective strategies for mental health, such as the importance of mental health counseling and social supports or the benefits of healthy diet and exercise, is a simple approach to educating patients on ways to promote wellness and protect against risk factors for depression. If the issue of time is impeding this from occurring, having patient materials on hand is a strategy many genetic counselors use to provide their patients with information that they do not have time to cover in-depth in the session time allotted. Having an open line of communication between the genetic counselor and the other providers on the patient's prenatal care team should also be of utmost importance, in order to ensure that all providers are aware of the mental health status of the patient, and those individuals who may need further assessment are identified and connected to the proper resources.

More education on identifying features of and risk factors for depression could improve genetic counselors' confidence in this skill set, and hopefully increase the rates of prenatal genetic counselors that do screen for and address the topic of depression with their patients. Anxiety, life stressors, and socioeconomic status are all strongly associated with perinatal depression (Alhusen & Alvarez, 2016), yet only a fraction of genetic counselors report inquiring about these topics. As prenatal genetic counselors are trained to ask questions to assess for direct risk to a pregnancy, it is also necessary to provide education on how perinatal depression can negatively impact the health and development of a child. The purpose of increased education, preferably at the graduate program level, is twofold: to provide genetic counseling students with the knowledge of how to assess for and properly address concerns of depression, and to also provide students with the confidence they need to address this topic with their patients. Routinely performing some type of assessment for depression in patients, whether by using clinical judgment or a validated screening measure such as the PHQ-9, Beck Depression Inventory, or Edinburgh Postnatal Depression Scale, should be seen as a significant component of the prenatal genetic counseling process.



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## Appendix

Table 1. Survey Questions and Responses

Question	Response: (Number) %			
1. What was your year of graduation from a certified Genetic Counseling program?	2013-2018: 34 (73.9%)	2007-2012: 6 (13.0%)	Prior to 2007: 6 (13.0%)	
2. Did you receive any graduate education on assessing current depression in a patient? If so, what type of education was provided? Check all that apply.	Lectures: 30 (52.6%)	Role-playing exercises: 19 (33.3%)	Clinical rotation experiences: 11 (19.3%)	Other: 3 (5.3%)
3. While working as a genetic counselor post-graduation, do you currently, or have you in the past, seen patients in a clinical prenatal genetics setting?	Yes: 46 (93.9%)	No: 3 (6.1%)		
4. Do you feel that addressing depression is important in a prenatal genetic counseling setting?	Yes: 27 (60.0%)	No: 2 (4.4%)	Depends on the situation: 16 (35.6%)	
5. During the time you were a prenatal genetic counselor, have you ever had a patient spontaneously disclose a personal history of depression in themselves?	Yes: 40 (87.0%)	No: 6 (13.0%)		
6. While taking a medical history, do you routinely ask patients about a personal history of depression (or is it included on the medical intake form?)	Yes: 14 (30.4%)	No: 23 (50.0%)	Depends on the situation: 9 (19.6%)	
7. If yes, do you include this information on your pedigree?	Yes: 21 (91.3%)	No: 2 (8.7%)		
8. Do you ask patients about any of the following topics? Check all that apply:	Anxiety: 15 (26.3%) Relationship status: 17 (29.8%)	Life stressors: 14 (24.6%)	History of depression: 15 (26.3%)	Adequate social support: 27 (47.4%)
	Whether or not pregnancy was planned: 12 (21.1%)	If the patient is safe in their home: 5 (8.8%)	Income/education: 10 (17.5%) Insomnia: 1 (1.8%)	If the patient is a smoker: 30 (52.6%)

9. If your patient reports being currently depressed, do you typically ask about any of the following? Check all that apply:	Age of onset: 14 (24.6%)	Use of antidepressant medication(s): 37 (64.9%)	Currently seeing a therapist or other mental health professional: 40 (70.2%)	Presence of religious support: 9 (15.8%)
	Other: 6 (10.5%)	Presence of other support systems: 35 (61.4%)		
10. If you become aware of symptoms of depression in your patient, do you adjust your counseling in any way?	Yes: 35 (74.5%)	No: 12 (25.5%)		
11. If yes, have you been able to provide referrals to a mental health provider for patients with depression?	Yes: 26 (78.8%)	No: 7 (21.2%)		
12. If yes, have you given reading materials/educational information to patients with depression?	Yes: 6 (17.6%)	No: 28 (82.4%)		
13. Do you find that there are any barriers to requesting or obtaining information about depression in your patients?	Yes: 29 (63.0%)	No: 17 (37.0%)		
14. Do you feel confident in your abilities to recognize depressive symptoms and to address the topic of depression with your patients?	Yes: 25 (53.2%)	No: 22 (46.8%)		
15. Do you find that discussing risk factors for depression can be more worrisome for patients than it is helpful?	Yes: 8 (17.4%)	No: 38 (82.6%)		
16. Do you discuss with patients different strategies to protect their mental health?	Yes: 28 (59.6%)	No: 19 (40.4%)		
17. Do you routinely use any validated screening measures to ask about symptoms of depression? Check all that apply.	PHQ-9: 2 (3.5%) I do not use validated screening measures: 42 (73.7%)	Beck Depression Inventory: 2 (3.5%)	Edinburgh Postnatal Depression Scale: 2 (3.5%)	Center for Epidemiologic Studies Depression Scale: 0 (0.0%)
18. If yes, when do you provide the patient with the screen?	In prenatal and postnatal care: 1	At the first appointment: 2		

19. Do you ever receive the patient's depression screen or any other information related to their mental health from the referring provider?	Yes: 29 (61.7%)	No: 18 (38.3%)		
20. If yes, do you incorporate this information into your counseling session?	Yes: 20 (69.0%)	No: 9 (31.0%)		
21. Are you aware of the ACOG guidelines suggesting that all healthcare professionals providing care during the obstetric period should be screening for depression in their patients?	Yes: 17 (36.2%)	No: 30 (63.8%)		