The Relationship between Depression, Social Support and Anxiety in Young Mothers Versus Older Mothers

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Abstract

Background and aims: Depression is a prevalent mental health concern; it affects 10-20% of mothers during the first year of postpartum period (O'Hara & Wisner 2014). This is called postpartum depression. It is defined by persistent feelings of sadness, loss of interest in things once interested in, changes in appetite or sleep patterns (American Psychiatric Association, 2013). The aim of this study is to investigate the relationships between depression, social support, and anxiety in young mothers versus older mothers, with the goal of developing an understanding any potential age-related discrepancies and identifying factors that can contribute to maternal mental health outcomes. **Method:** Three questionnaires were administered to participants (N=56) through social media channels accessing each participants levels of depression, anxiety (DASS) and social support (OSSS-3). **Results:** A Pearson's correlation analysis found that there was a correlation between depression and anxiety, while in the standard multiple regression model there was no statistical significant result found between the variables of depression, anxiety and social support with age. Implications and future research for this study are discussed.

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Introduction

The transition into motherhood is one of the most significant and important life events a woman can go through. This type of event can have a profound effect on not only the woman's physical health but also her mental health. Multiple factors, including age and social support may play a part in the psychological well-being of mothers. This literature review aims to examine the relationship between depression, social support and anxiety in young mothers compared to older mothers. It is crucial to understand these key associations for the development of effective interventions and support systems for all mothers across different age groups.

Depression is a prevalent mental health concern; it affects 10-20% of mothers during the first year of postpartum period (O'Hara & Wisner 2014). This is called postpartum depression. It is defined by persistent feelings of sadness, loss of interest in things once interested in, changes in appetite or sleep patterns (American Psychiatric Association, 2013). Young mothers, typically defined as those under 25 (Chen et al., 2016), may face unique obstacles as they navigate the demands of motherhood while still undergoing their own developmental transitions. On the other hand, older mothers may experience different obstacles and responsibilities to that of younger mothers, with raising children at a later stage in life.

Social support, a multidimensional construct encompassing emotional, informational, and instrumental assistance from individuals within one's social network (Cohen & Wills 1985), plays a vital role in maternal mental health. Studies have consistently shown that social support can act as a protective factor against depression and anxiety among mothers (Goodman 2004). However, the impact of social support on young mothers' mental health outcomes compared to older mothers remains an area of interest.

Anxiety, defined by excessive worry, restlessness, and physical symptoms such as palpitations or shortness of breath (American Psychiatric Association, 2013), is another critical dimension of maternal mental health. The relationship between anxiety and age among mothers is not well-established, and it is important to explore potential age-related differences in anxiety levels between young and older mothers.

Young mothers face distinct challenges related to the intersection of developmental milestone and the demands of parenthood. Research suggests that young mothers are at a higher risk of experiencing depressive symptoms compared to their older counterparts. For instance, a longitudinal study by Carter et al. (2017) found that adolescent mothers exhibited higher rates of depression during pregnancy and postpartum compared to older mothers. This higher vulnerability may be attributed to factors such as limited social support, lower socioeconomic status, and the stress associated with early motherhood (Reid et al., 2018). Furthermore, the existence of psychosocial risk factors increases the likelihood of depression in young moms. Smith et al. (2016) discovered that young mothers who had suffered earlier trauma, such as childhood abuse or neglect, were more likely to develop depressive symptoms. Similarly, in this demographic, low educational attainment and financial insecurity have been recognized as risk factors for depression (SmithBattle, 2007). Older mothers, defined as those over the age of 35, encounter additional problems that might contribute to depressive symptoms. Prenatal and postpartum depression rates have been linked to advanced maternal age (Durukan et al., 2019). Chen et al. (2018) discovered that older moms had greater levels of depressive symptoms during pregnancy, due to concerns about pregnancy risks, fertility issues, and societal pressure associated with delayed childbirth.

Potential Mechanisms

Depression is a prevailing mental health issue that can significantly affect maternal well-being. Understanding the underlying factors that contribute to these depression symptoms in young mothers versus older mothers is important for directed interventions and support strategies.

Biological Factors

Understanding biological changes that come with age are essential to know as they can contribute to depressive symptoms in mothers. Young mothers experience hormonal fluctuations during pregnancy and even after during the postpartum period, these hormonal fluctuations can be often linked to mood disturbances (Bloch et al. 2003). These mood disturbances coupled with the physical demand of being a mother along with the emotional adjustments can increase their vulnerability to depression. Furthermore, hormonal changes associated with perimenopause and menopause in older moms may raise the probability of depressive symptoms (Schmidt et al., 2004). The decrease in ovarian function and the associated decline in estrogen in older mothers have been linked to an increased risk of depression (Schmidt et al., 2004). These age-correlated hormonal changes can interact with other known factors that result in the persistent depressive symptoms.

The correlations between age and depression in younger mothers versus older mothers may be determined by underlying neurobiological mechanisms. Neuroimaging studies have found differences in brain structure and function between individuals who have depression and those who do not. Individuals with depression, for example, experience changes in the activity of brain areas involved in emotion processing, such as the amygdala and prefrontal cortex (Hamilton et al., 2012). Age-related changes in brain regions associated with mood regulation, such as the hippocampus, which is involved in the stress response and emotional processing,

may be observed in older moms (Sacher et al., 2012). These changes in brain structure and function that occur with age may make older mothers more vulnerable to depression.

Life Stressors

Young mothers often face unique challenges during their transition into motherhood. Some of these challenges include and are not limited to financial difficulties, educational disruptions and limited career opportunities (Reid et al., 2018). When these stressors are combined with the obligations of parenting, young mothers are more likely to develop depression. During this time, their lack of expertise and support networks may enhance the likelihood of developing depressive symptoms.

On the other hand, older mothers are faced with different life stressors with parenting later in life. They face concerns about their health, mortality, the physical demands associated with motherhood and also other age-related responsibilities (Davey et al., 2015). These stressors combined can contribute to older mothers' susceptibility to depression.

Social Support

The availability and quality of social support plays a critical role in shielding against the harmful influence of life stressors on maternal mental health. Young mothers often experience low amounts of social support due to their age and the social stigma associated with early motherhood (Carter et al.2017). They can experience limited support due to the judgements and criticism individuals have against young mothers, which can lead to feelings of isolation and increase the likelihood of developing depression. The absence of emotional support from peers and also practical support can aggravate the stressors associated with parenting in young mothers. Young mothers who perceive inadequate levels of support or have strained relationships with family members or partners may be more likely to suffer from depression (Culpin et al., 2017). In young mothers, a lack of emotional support and

feelings of being misunderstood or condemned can contribute to increased stress and psychological suffering.

Older mothers have more established social support networks, that include partners, extended family, and friends (Davey et al., 2015). The presence of these established social support networks can provide emotional support, practical help, a sense of belonging, which can often act as a protective factor against depression for mothers. The availability of these social support networks helps older mothers cope with the challenges that motherhood brings.

Ethnicity and Education

Numerous research have been conducted to study the relationship between educational level and depression. Higher levels of education are frequently connected with improved access to resources, social support, and job prospects, all of which may operate as protective factors against depression (Lorant et al., 2003). Individuals with higher educational attainment have a greater understanding of mental health and coping techniques, which leads to improved mental health. Individuals with lower educational levels, on the other hand, may suffer a variety of stressors, such as economic challenges, limited career possibilities, and limited access to healthcare, all of which contribute to greater rates of depression (Lorant et al., 2003). Educational attainment influences one's socioeconomic standing and access to resources, therefore can have an immediate influence on mental health outcomes.

Ethnicity and depression have a complicated and diverse relationship. Discrimination, acculturation issues, and language barriers are common stresses for ethnic minorities, which can raise their risk of depression (Takeuchi et al., 2007). Depression frequency varies across ethnic groups due to differences in cultural beliefs, social norms, and coping techniques. Lower rates of depression may be found in ethnic communities with strong social support networks and cultural practises that promote resilience and coping (Bhui et al., 2003). These

protective variables can help to mitigate the harmful effects of stressors and lead to better mental health outcomes.

Depression levels can be influenced further by the interaction of educational level and ethnicity. Individuals with higher educational attainment, for example, may face more acculturative stress among particular ethnic groups due to confrontations between traditional cultural norms and mainstream society (Birman & Tran, 2008). Acculturative stress may contribute to greater depression rates in these subgroups. Higher educational attainment, on the other hand, within ethnic communities with strong social support structures, may provide additional resources and chances for individuals to cope with stress and minimize the risk of depression (Bhui et al., 2003).

Current Study

By comparing depression, social support, and anxiety levels in young mothers and older mothers, this study aims to identify any potential age-related differences in depressive symptoms. According to research, young moms may encounter obstacles related to early parenthood, such as a lack of social support and developmental shifts (Carter et al., 2017; Reid et al., 2018). Older mothers, on the other hand, may face a variety of stressors connected to advanced maternal age and reproductive difficulties. Investigating these distinctions can provide useful insights into the elements that contribute to depression in both age groups.

Understanding the impact of interpersonal interactions on maternal mental health requires research into social support in young moms and older mothers. This study will look at social support as a protective factor to see if age affects the availability and effectiveness of social support in reducing depression and anxiety symptoms (Giallo et al., 2014; SmithBattle, 2007).

Anxiety is a significant part of maternal mental health that has received less attention than depression. This study evaluates anxiety levels between young moms and older mothers

to determine if there are any significant age-related variations. By measuring anxiety levels, the study hopes to identify probable factors contributing to anxiety in both age groups, such as parenting stress, life circumstances, and perceived control (Goodman, 2004; Kim et al., 2017).

Understanding how depression, social support, and anxiety interact in young and older mothers is crucial because it helps uncover potential risk factors or protective factors for maternal mental health. The findings of this study can be used to develop specialized interventions and support measures that improve mental health in both age groups.

The study's findings have important implications for developing parenting support programs that address the needs of young and older mothers. These programs can be tailored to target and address the specific causes that contribute to anxiety and depression by identifying and addressing these issues. To ensure their success, suitable coping mechanisms and social support networks must be provided. The study's findings could also have an impact on policy and service delivery in mother and child health. Policymakers may make informed decisions about resource allocation and the creation of policies that aim to improve mental health services and support for both young and older mothers by identifying the mental health issues experienced by different age groups of mothers. The study's findings may highlight the significance of more longitudinal research into the mental health trajectories of young and older mothers. Understanding how these factors vary over time can provide important insights into the long-term effects for maternal mental health and the well-being of their children.

Hypotheses and research aim

The aim of this study is to investigate the relationships between depression, social support, and anxiety in young mothers versus older mothers, with the goal of developing an

understanding any potential age-related discrepancies and identifying factors that can contribute to maternal mental health outcomes.

The hypotheses related to this study are as follows,

1. Young mothers will exhibit higher levels of depression compared to older mothers.
2. Older mothers will experience higher levels of social support compared to young mothers.
3. Anxiety levels will significantly differ between young mothers and older mothers.

Method

Participants

Participants were recruited using convenience and snowball sampling techniques. A brief description of the study and link was shared through the social media channels of: Snapchat, Instagram, and WhatsApp. Participants who contributed to the study were encouraged to invite others who they thought were eligible to participate. To determine the sample size required for this study, G*Power: Statistical Power Analyses (Faul, Erdfelder, Buchner, & Lang, 2009) was used to determine the sample size required for a statistically powerful analysis. After carrying out the G*Power analysis, it concluded that the sample size required for this study would be 74 for a 0.15 effect size f2, with a power of 0.95.

The final sample consisted of 56, with a mean age of 27.32 (SD = 10.65), ranging from 18 to 63. 67.9% of the collected samples were under the age of 25 while 32.1% were aged above 26. 19.6% had secondary school education as the highest level of education, 51.8% had undergraduate as the highest level of education, and 28.6% had postgraduate as the highest level of education.

Measures

Demographics. Participants were asked to indicate their ethnicity, and their age. Participants were also asked to identify the highest educational level they have achieved (primary school, secondary school, undergraduate and postgraduate).

Depression Anxiety Stress Scale (DASS) - Adapted. The DASS (Lovibond, S.H. & Lovibond, P.F.1995) originally a 44-item scale, reduced to a 28-item scale for the nature of this study, was used to determine the participants levels of depression and anxiety. Participants read the 28 questions and rated them on a 4-point Likert Scale from 0 (did not apply to me at all) to 3 (applied to me very much or most of the time). The sum of all responses can range from 0-42 for both depression and anxiety. The results show their level

of anxiety on a scale of “0-6 normal”, “7-9 mild”, “10-14 moderate”, “15-19 severe”, and “20-42 extremely severe”. The results show their level of depression on a scale of “0-9 normal” “10-12 mild” “13-20 moderate” “21-27 severe” and “28-42 extremely severe”. Moya et al., (2022), tested the Cronbach's alpha for the depression and anxiety items and found values of .66 and .29, respectively. In relation to this study, I reassessed the level of internal reliability and found values of .960 and .911 for depression and anxiety respectively.

Oslo Social Support Scale (OSSS-3). The Oslo social support scale is a three-item scale, and it measures social support. This scale asks the participants the number of close confidants they have. This scale is a quick tool for measuring social support levels (Kocalevent et al., 2018). "How many people are so close to you that you can count on them if you have great personal problems?" is an example question from the scale. includes responses on a Likert scale ranging from 1 ("none") to 4 ("5+"). The sum of all responses can range from 3 to 14. The results show their level of social support on a scale of “3-8 poor social support”, “9-11 moderate social support”, and “12-14 strong social support”. Previous research has demonstrated the scale to be reliable, with Cronbach's alpha values ranging from .640 to.752 (Kocalevent et al., 2018; Monteleone et al., 2022). In relation to this study, I reassessed the level of internal reliability associated with social support scale relative to the participants. The Cronbach’s alpha values for the OSSS-3 was .441.

Design

The present study used a qualitative and an observational approach. The predictor variables were those of age, educational level, age, and ethnicity, while depression, anxiety with social support were individually used as a criterion variable for multiple regression that was conducted. An independent-samples t-test was conducted to test the differences between depression, social support, anxiety, and age. The dependent variable was age, ethnicity and

educational level while depression, social support and anxiety were the independent variables.

Procedure

Data was collected online through Google Forms. Before the survey was released to the required sample, it was piloted to my supervisor to determine if the survey's layout was formatted correctly and to make sure there would be no problems encountered. The average time for this survey to be completed was 10 minutes and no issue was found. The survey was posted on various social media platforms like: Snapchat, Instagram, and WhatsApp groups with a brief description of the study, eligibility criteria for participants and then invited anyone who wished to take part in the study to clink the link to participate. The first page of this survey included the participant information sheet, describing the study's nature and purpose. It also included the author, organization, and supervisor in case any of the participants had any questions about the study prior to partaking in the study (see appendix A). Participants were informed that their involvement in this study was completely voluntary, and if they decide to take part in the study, they could withdraw their consent any time before they submitted their finished survey and would receive no penalty.

The next page of the survey included the consent forms. This again outlined the nature and purpose of the study and also included a section where the participant was to click to ensure they gave consent for their data being used in the study (see appendix B). To continue with this study, participants needed to verify that they were over the age of 18. The next page asked for demographic information applicable to age, ethnicity and educational level (see appendix C). The Depression Anxiety and Stress scale – adapted (see appendix D), and The Oslo Social Support Scale (see appendix E). The last page of the survey included the debriefing form (see appendix F). This detailed any helpline the participants may need to contact in the case where feelings of distress arose by taking part in the study and thanking participants for their

involvement in the study. Participants were also told they were obliged to share the link with other individuals they thought were suitable for the study's eligibility.

This research study was approved by the National College of Ireland's Ethics Committee and is in line with The Psychological Society of Ireland Code of Professional Ethics (2010) and the NCI Ethical Guidelines and Procedures for Research involving Human Participants. Though no obvious harm was expected from this study, the debriefing form included helpline numbers if any participant felt psychologically triggered by the material presented.

Results

Descriptive Tests

Descriptive statistics for demographic variables are presented in Table I for both groups Young Mothers and Older Mothers. 67.9% of the sample belonged to the Young Mother group and 32.1% belonged to the Older Mother group.

Table I

Frequencies for the current sample of the two age groups, Young Mothers and Older Mother (N = 56)

Variable	Frequency	Valid %
Age		
Young Mothers	38	67.9
Older Mothers	18	32.1

Table II

Descriptive statistics for Age, Anxiety, Depression, Educational level, Ethnicity and Social Support

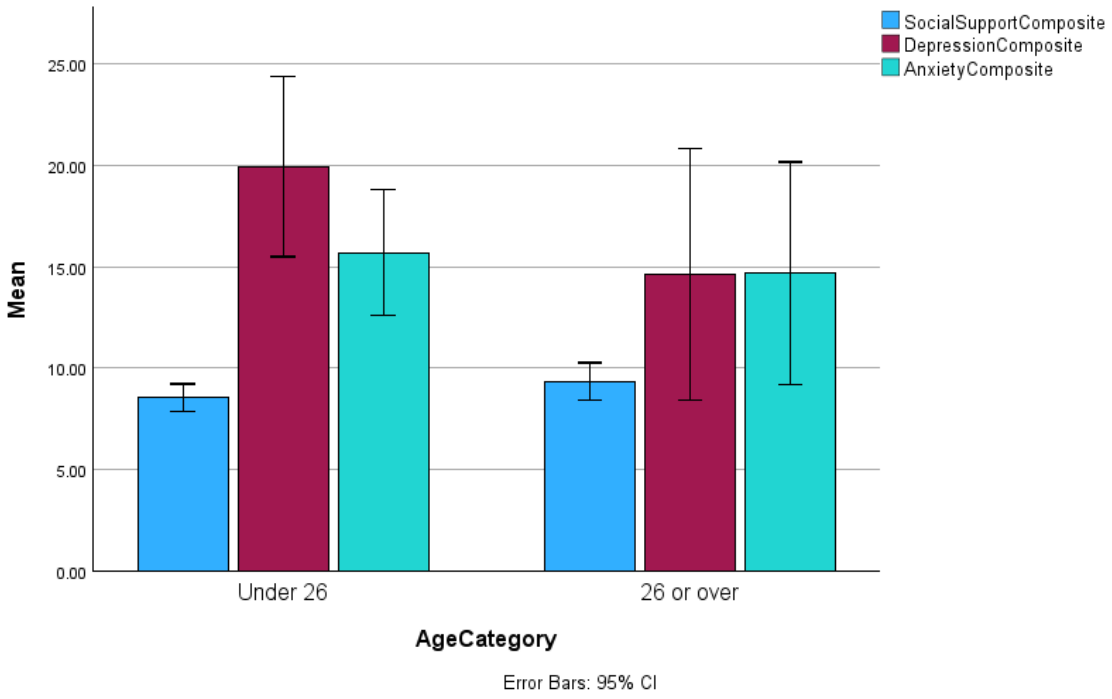
Variable	*M* [95% CI]	*SD*	Range
Age	27.32 [24.47, 30.17]	10.65	45
Anxiety	15.36 [12.70, 18.02]	9.84	35
Depression	17.93 [14.39, 21.47]	13.21	45
Educational level	3.09 [2.90, 3.28]	.70	2

Ethnicity	3.64 [2.71, 4.58]	3.49	13
Social Support	8.86 [8.31, 9.41]	2.0	7

Means (M) and standard deviations (SD) for all continuous variables are presented in Table II. Participants had a mean age of 27.32 years (SD=10.65), ranging from 18 to 63. A more comprehensive view of the comparative means for all continuous variables two age groups can be seen in Figure 1. An insignificant result (*p* .014) of the Shapiro-Wilk statistic was found for all continuous variables indicating that the data is not normally distributed. In line with the central limit theorem the current sample size is large not enough to assume that the sample means are well-approximated by a normal distribution.

Figure 1

A comparative means of all continuous variables for both groups Young Mothers and Older Mothers (N=56)



Inferential Tests

A Pearson's correlation coefficient was conducted to assess the relationship between depression and anxiety. Preliminary analysis was conducted to ensure no violation of assumptions of normality, linearity and homoscedasticity. There was a significant correlation between depression and anxiety (r = .77, n = 56, p < .001). Results showed that higher levels of anxiety are associated with higher levels of depression.

A Pearson's correlation coefficient was conducted to assess the relationship between depression and social support. Preliminary analysis was conducted to ensure no violation of assumptions of normality, linearity and homoscedasticity. There was a non-significant correlation between depression and social support (r = -.25, n = 56, p .06). Results indicate the levels of social support are not predictive of depression levels.

A Pearson's correlation coefficient was conducted to assess the relationship between anxiety and social support. Preliminary analysis was conducted to ensure no violation of assumptions of normality, linearity and homoscedasticity. There was a non-significant correlation between anxiety and social support (r = .77, n = 56, p < .001). Results indicate that levels of anxiety are not predictive of social support.

An independent-samples t-test was conducted to compare the Depression scores for Young Mother and Older Mother. There was no significant difference (t (54) = 1.30, p = .20) in scores for Young Mothers (M = 19.50, *SD = 13.40)* and for Older Mothers (M = 14.61 *SD* = 12.48). The magnitude of the differences in the means (mean difference = 4.89, 95% *CI:* = -2.64 to 12.41), the Cohen's d result of this test was .38 resulting in a small effect size. Hence H1 was not supported.

An independent-samples t-test was conducted to compare the Anxiety scores for Young Mother and Older Mother. There was no significant difference (t (53) = .36, p = .72) in

scores for Young Mothers (*M* = 15.70, *SD* = 9.34*)* and for Older Mothers (*M* = 14.67 *SD* = 11.07). The magnitude of the differences in the means (mean difference = 1.04, 95% *CI:* = -4.69 to 6.76), the Cohen's d result for this test was .10 resulting in a small effect size. Hence H3 was not supported.

An independent-samples t-test was conducted to compare the Social Support scores for Young Mother and Older Mother. There was no significant difference (*t* (54) = -1.20, *p* = .235) in scores for Young Mothers (*M* = 8.63, *SD* = 2.11*)* and for Older Mothers (*M* = 9.33 *SD* = 1.88). The magnitude of the differences in the means (mean difference = -.70, 95% *CI:* = -1.87 to .47), the cohen's d for this test was .35 resulting in a small effect size. Hence H2 was not supported.

To examine each hypotheses, a standard multiple regression model was conducted to examine if the predictor variables could predict depression, social support and anxiety levels in Young Mothers and Older Mothers.

Hypothesis 1

To determine whether Younger Mothers will have higher levels of depression than Older Mothers. Multiple regression was conducted, and added depression as the dependent variable and age, ethnicity and educational level as independent variables. Preliminary analysis were conducted to ensure no violations of the assumptions of normality. Correlations between the predictor variables and the criterion variable were examined and are outlined in Table III.

Standard multiple regression for predictors of Depression

Variable	R^2	B	SE	β	*t*	*p*
Age	.12	-2.25	3.95	-.08	-.57	.57

Educational level					
Secondary School	-3.95	5.06	-.12	-.78	.44
Postgraduate	-9.48	4.25	-.33	-2.23	.03
Ethnicity					
White	-3.136	8.46	-.11	-.37	.71
Black	-1.72	8.02	-.06	-.22	.83

Note: R^2 = R-squared, B = unstandardized beta value, SE = Standard error, β = standardized beta value; Standard errors of B; CI 95% (B) = 95% confidence interval for B; N = 56

The criterion variables depression was put in a regression model where age, ethnicity and educational levels where predictor variable, F(1.35) = 50, p .257, which indicates that the three predictor variables do not have a statistically significant relationship with depression. Moreover, the R^2 = .12 depicts that the model explains 12% of the variance of depression. The undergraduate variable was excluded from this analysis as it would violate the assumptions of the regression model.

Hypothesis 2

To determine whether Older Mothers will have higher levels of social support than Younger Mothers. Multiple regression was conducted, and added social as the predictor variable and age, ethnicity, and educational level as criterion variables. Preliminary analysis were conducted to ensure no violations of the assumptions of normality. Correlations between the predictor variables and the criterion variable were examined and are outlined in Table V.

Table V

Table 1

Standard multiple regression table for predictors of Social Support

Variable	R^2	*B*	*SE*	β	*t*	*p*
Age	.20	.33	.59	.07	.57	.57
Educational level						
Secondary school		.74	.75	.15	.99	.33
Postgraduate		.36	.63	.08	.57	.58
Ethnicity						
White		2.98	1.25	.65	2.38	.02
Black		1.58	1.19	.36	1.33	.19

Note: R^2 = R-squared, B = unstandardized beta value, SE = Standard error, β = standardized beta value; Standard errors of B; CI 95% (B) = 95% confidence interval for B; N = 56

The criterion variables social support was put in a regression model where age, ethnicity and educational levels where predictor variable, F(2.48) = 50, p .04, which indicates that the three predictor variables do not have a statistically significant relationship with depression. Moreover, the R^2 = .20 depicts that the model explains 20% of the variance of depression. The undergraduate variable was excluded from this analysis as it would violate the assumptions of the study.

Hypothesis 3

To determine whether Younger Mothers have a significant difference in anxiety levels than Older Mothers. Multiple regression was conducted, and added anxiety as the criterion variable while age, ethnicity and educational level as predictor variables. Preliminary analysis were conducted to ensure no violations of the assumptions of normality. Correlations between the predictor variables and the criterion variable were examined and are outlined in Table VI

Table VI

Standard multiple regression table for predictors of Anxiety

Variable	R^2	*B*	*SE*	β	*t*	*p*
Age	.08	.14	3.02	.01	.05	.96
Educational levels						
Secondary School		4.69	4.29	.192	1.09	.28
Undergraduate		5.64	3.25	.29	1.74	.09
Ethnicity						
White		1.54	6.45	.07	.24	.81
Black		-.69	6.12	-.03	-.11	.91

Note: R^2 = R-squared, B = unstandardized beta value, SE = Standard error, β = standardized beta value; Standard errors of B; CI 95% (B) = 95% confidence interval for B; N = 56

The criterion variables depression was put in a regression model where age, ethnicity and educational levels where predictor variable, F(.87) = 49, p .51, which indicates that the three predictor variables do not have a statistically significant relationship with depression. Moreover, the R^2 = .08 depicts that the model explains 8% of the variance of depression. The postgraduate variable was excluded from this analysis as the sample size was too small to be considered for the model.

Discussion

The current study explored the relationships between depression, social support and anxiety in Young Mothers And Older Mothers while identifying potential factors that contribute to maternal mental health outcomes. The participants were majorly within an Irish context, with some participants participating from the United Kingdom. The study sought to provide a better understanding of the relationship depression, social support and anxiety had on maternal age. Through this research, three hypothesis were drawn up to address the aims of this study. In both age groups, the data revealed no statistically significant relationships between these variables, contrary to our initial predictions. This section will go over possible explanations for the non-significant findings and their implications for understanding maternal mental health across age groups.

From previous literature, it was hypothesized that younger mothers will have higher levels of depression than older mothers (Carter et al., 2017). This relationship was investigated by running a multiple regression model. The findings of this study conclude that Younger Mothers have higher rates of depression than Older Mothers. From the multiple regression analysis ran, the findings showed that there was no statistically significant between each variable. Although there was no statistically significant between the variables, we can note that there is a change in depression scores as you move from the younger mother group to the older mother group. While the results did conclude to be statistically not significant, a trend could be seen across the regression model. As mothers moved from one group to another their depression levels dropped by two points. Although the results are not statistically significant, it follows the current literature that says younger mothers will have higher levels of depression.

For the second and third hypothesis ran under the regression model there was no statistical significant result found, which concluded that the findings of our study can not be

used to make inferences for the wide. Again, although there were no statistically significant results, as mothers went from the first age category to the next there was a decrease in their anxiety levels and an increase in social support levels respectively.

A Pearson's correlations analyze was conducted to see the correlation between depression and anxiety, and there was a statistical significant value of <.001. This finding was aligned with current literature as depression and anxiety have a comorbid relationship (Wei et al., 2016). For the rest of the Pearson's correlations tests ran, there was no statistical significant results found.

Regardless of the lack of statistical significance, it is critical to understand that the absence of evidence does not always imply proof of absence. Non-significant findings do not negate the significance of the research topic or the relevance of the variables under consideration. The findings of our study complement to the current body of literature on maternal mental health and provide vital information about the intricacies of depression, social support, and anxiety in young and older mothers.

Strengths and Limitations

The study presents several limitations. Firstly, prior to the undergoing of the study, a G*Power analysis was conducted to determine how many participants would be required to get a statistically significant result. It concluded the study would need 74 participants to conduct a feasible study. Within the short time available for the collection of data, only 56 participants were able to contribute to the study, which did not meet the requirements of 74 participants to detect the expected effect size of .15. So therefore sample size did not satisfy the guideline of 74 from Tabachnick and Fidell's (2013) sample size formula. This in part could explain why there was not a statistical significant result in the tests carried out. As the sample size of this study is considered small, it will be hard to detect any type of significant effect and weakening the ability to draw effective conclusions from the study (Cohen, 1988).

Along with the statistical power of the study being reduced, because of the small sample size the results unfortunately can not be used to draw inferences into the general public (Tanner-Smith et al., 2016). Another limitation of having of having a small sample size is that it increases the possibility of having a type II error. This is where the study fails to detect a true relationship in the population due to the lack of sufficient participants (Sedgwick, 2014). Small sample sizes are at an increased risk of being exposed by outliers, this can unduly influence the study's result and conclusions (Hays, 1994). Future studies should incorporate a longer timeline in acquiring participants to ensure the minimum requirements of participants are met to ensure results and conclusions can be generalized to the greater population.

Another possible limitation would be the grouping of the young and older mothers. This again draws on the number of participants that contribute to the study, because of the two separate groups were made the validity of results were decreased.

Another limitation of this study is that although the data collected was collected anonymously, some people may have experienced social desirability bias, which is the tendency to answer self-report questions in ways that, consciously or unconsciously, portray them in a more positive light (Ravazi, 2001). Self-report measures are also susceptible to self-selecting bias, which means that answers may have been affected by how the person felt at a specific point in time rather than their overall feelings regarding the elements being measured. Future studies should either look at developing a qualitative and a longitudinal research design in a controlled laboratory setting. For example, researchers could gather the proposed amount of participants prior to becoming mothers and interview them and then again after they become mothers and ask them the same questions they were asked prior to becoming mothers.

The last limitation of this current study was Cronbach's alpha value relative to the OSSS-3 scale. We retested the Cronbach's alpha for this study for the OSSS-3 scale and

found a value of .441. This scale consisted of only 3 items on the scale and did not produce good reliability within our study. This could imply that the scale was insufficiently detailed or sensitive to adequately capture a true experience of social support. Future study could utilize a more complete scale that evaluates more components of the social support construct to generate more accurate results.

Conclusion

In closing, this study investigated the differences in depression, social support and anxiety in young mothers versus older mothers. Even though the study did not produce enough statistical significance in each test run, it is still undeniable that there is a clear difference between each group when it comes to these variables and also the other factors considered (i.e., educational level and ethnicity). This study also helped to understand that educational level and ethnicity also plays a part in whether depression, social support and anxiety levels are high or low in each group. Future studies with larger samples and longitudinal designs may shed more light on the intricate interplay of these psychological characteristics in young and older moms. Finally, this study suggests that more extensive research should be done to investigate the effect that ethnicity and educational level has on these variables.

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Appendices

Appendix A

Participant information sheet

The Relationship between Depression, Social Support and Anxiety in Young Mothers Versus Older Mothers

You're being invited to take part in an undergraduate research study. Before deciding whether you would like to take parts, please read the following document outlining your participation in the study. If you have any questions about the study and participation, feel free to contact myself with my contact details listed below.

I am a final year student in the BA in psychology program at National College of Ireland. As part of my studies, we must complete a research study on a topic of our interest.

What is the study about?

The aim of the study is to investigate the relationship between depression, social support and anxiety in young mothers and older mothers. This study seeks to add knowledge as this field is widely studied, but the differences is in this study I will be looking at the differences between young mothers (18-30) and older mothers (31+)

What does taking part involve?

Participants will be asked to complete an online questionnaire. This questionnaire should take no longer than 20 minutes to complete.

Who can take part?

You can take part in this study if you are aged over 18. You can take part in this study if you are a mother as this study requires our participants to be over the age of 18 and not a vulnerable group. You cannot take part in the study if you have been diagnosed with a memory problem. As this will interfere with your ability to complete the questionnaire.

Do I have to take part?

Participation in this study is completely voluntary, you do not have to take part and there will be no consequences if you do not take part in the study. You can withdraw your consent at any point in the study before submitting the questionnaire, after submission you will not be able to withdraw as the questionnaire is completely anonymous.

What are the possible risks and benefits of taking part?

There are no direct risks in taking part in the study however, there is a small possibility where the questions may arise some stressful feelings in the participant. If this happens to the participant there are help lines, I have included at the end of this form for you to contact. There is also my supervisor email here: Robert.Fox@ncirl.ie

Will taking part be confidential and what will happen to my data?

The questionnaire will be completed online and will be completely anonymous, it'll be impossible to identify the participants. Only the researcher (I) will have access to the data collected.

What will happen to the result of the study?
The results will be graded as part of my final year program.

Who should I contact for more information?
Myself at x20303321@student.ncirl.ie or my supervisor Robert.Fox@ncirl.ie

Helplines in case risks occur.

SOSAD: 1800 901 909
Piéta House: 1800 247 247
Samaritains Ireland: 116 123
Postnatal Depression Ireland: 0214922083

Participant Consent Form

Appendix B

The Relationship between Depression, Social Support and Anxiety in Young Mothers Versus Older Mothers

Consent to take part in research.

1. Tick the box if you voluntarily agree to participate in this research study.
2. I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind.
3. I understand that I can withdraw permission to use data from my interview within one weeks after the interview, in which case the material will be deleted.
4. I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.
5. I understand that participation involves... (completing an online questionnaire)
6. I understand that I will not benefit directly from participating in this research.
7. I understand that all information I provide for this study will be treated confidentially.
8. I understand that in any report on the results of this research my identity will remain anonymous. This will be done by having the questionnaire be totally anonymous.
9. I understand that if I inform the researcher that myself or someone else is at risk of harm, they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.
10. I understand that under freedom of information legalisation I am entitled to access the information I have provided at any time while it is in storage as specified above.
11. I understand that I am free to contact any of the people involved in the research to seek further clarification and information.

Maria Olajide, Bachelor of Arts, Psychology, contact details of researchers:
x20303321@student.ncirl.ie

Signature of research participant
---------- ---------- Signature of participant Date
Signature of researcher
I believe the participant is giving informed consent to participate in this study.
---------- ---------- Signature of researcher Date

Appendix C

Educational level

Primary school

Secondary school

Undergraduate

Postgraduate

Ethnicity

White Irish

Black Irish

White British

Black British

Appendix D

Depression, Anxiety, Stress Scale (DASS)

Please reach each statement and circle a number 0, 1, 2, or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all.
1 Applied to me to a considerable degree, or some part of the time.
2 Applied to me to a considerable degree, or a good part of the time.
3 Applied to me very much, or most of the time.

1. I was aware of dryness of my mouth.
2. I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)
3. I had a feeling of shakiness (eg, legs going to give way)
4. I found myself in situations that made me so anxious I most relieved when they ended.
5. I had a feeling of faintness.
6. I perspired noticeably (eg, hand sweaty) in the absence of high temperatures or physical exertion.
7. I felt that life wasn't worthwhile.
8. I couldn't seem to experience any positive feeling at all.
9. I just couldn't seem to get going.
10. I felt that I had nothing to look forward to
11. I felt sad and depressed.
12. I felt that I had lost interest in just about everything.
13. I felt I wasn't worth much as a person.
14. I felt that life wasn't worthwhile.
15. I was worried about situations in which I might panic and make a fool of myself.
16. I found it difficult to relax.
17. I found myself getting upset rather than easily.
18. I felt scared without any good reason.
19. I found it hard to wind down.
20. I couldn't seem to get any enjoyment out of the things I did.
21. I felt downhearted and blue.
22. I felt close to panic.
23. I found it hard to calm down after something upset me.
24. I was unable to become enthusiastic about anything.
25. I was in a state of nervous tension.
26. I felt pretty worthless.
27. I felt terrified.
28. I could see nothing in the future to be hopeful about.
29. I felt life was meaningless.
30. I found it difficult to work up the initiative to do things.
31. I experienced trembling (e.g., in the hands)

Appendix E

Oslo Social Support Scale (OSSS-3)

Items:

1. How many people are so close to you that you can count on them if you have great personal problems.

Response Options:
'none'
'1–2'
'3–5'
'5+'

2.How much interest and concern do people show in what you do?

Response Options:
'none'
'little'
'uncertain'
'some'
'a lot'

3.How easy is it to get practical help from neighbours if you should need it?

Response Options:
very difficult'
'difficult'
'possible'
'easy'
'very easy'

Appendix F

Debriefing Form

I want to thank you for taking time out to be part of the study.

All the data that has been collected by participants during this study that could make you identifiable will be kept completely anonymous.

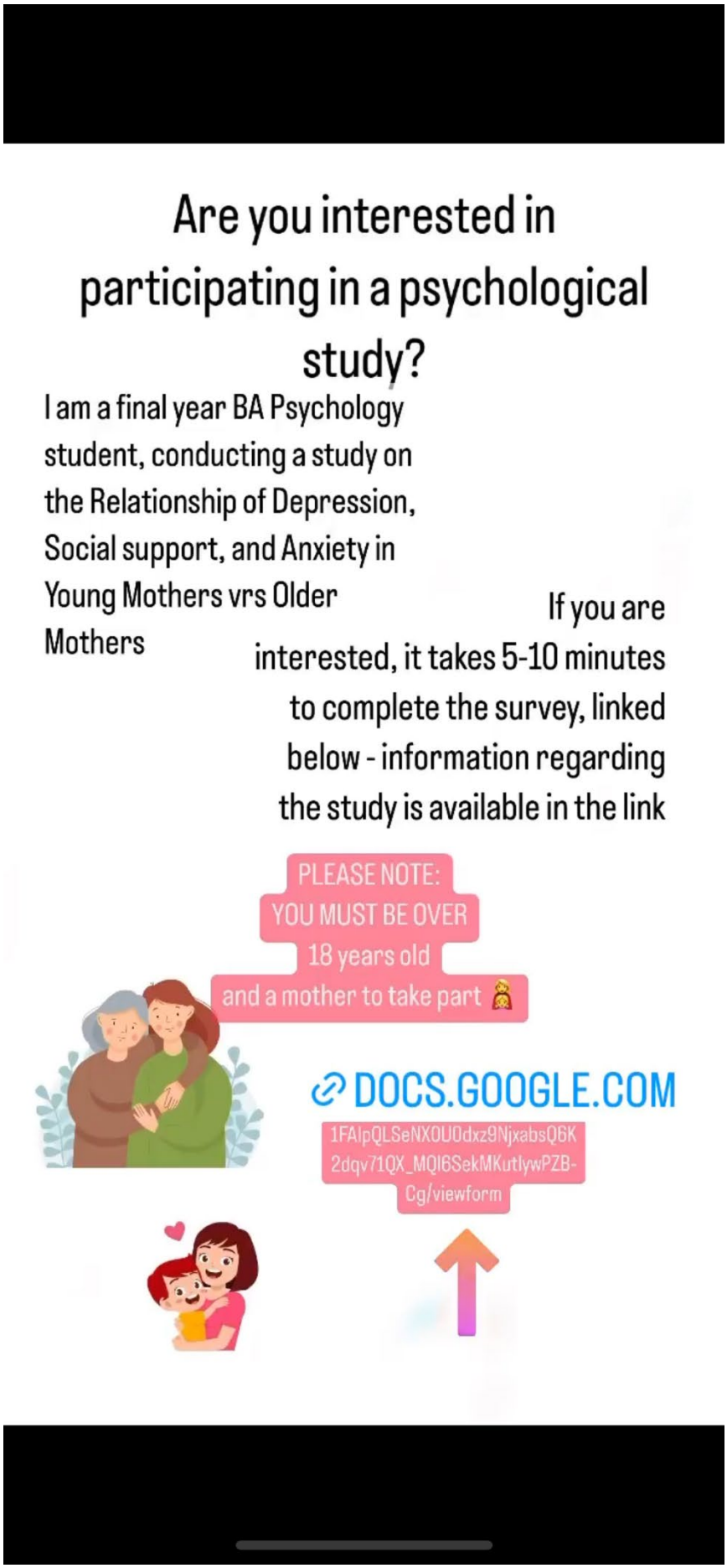
As mentioned in the introduction, some of the questions might make participants feel distressed as past experiences come to mind. If you feel you were in any way negatively affected by this, please do not hesitate to contact:

SOSAD: 1800 901 909
Piéta House: 1800 247 247
Samaritains Ireland: 116 123
Postnatal Depression Ireland: 021 4922083

If any participant has any question regarding the results of the study or any questions about the questionnaires please do not hesitate to contact myself x20303321@student.ncirl.ie or my supervisor Robert.Fox@ncirl.ie

Appendix G

Poster



Appendix H

Evidence of data and SPSSS output (full data file available upon request)