

EMOTIONAL DISTRESS AMONG NSUKKA WOMEN IN THEIR FIRST PREGNANCY: ROLES OF RESILIENCE AND PARTNER RELATIONSHIP SATISFACTION

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ABSTRACT

Assessment and treatment of emotional distress during pregnancy shows that women in their first pregnancy are at greater risk of experiencing intense distress, and interpersonal relationships with partners and resilience are important factors determining their psychological health. The present study aimed to investigate the roles of partner relationship satisfaction and resilience on emotional distress among women in their first pregnancy. Two hundred (200) women in their first pregnancy were recruited from UNN Medical Centre, Nsukka General Hospital, Nsukka Health centre, Bishop Shanahan and Divine Intervention Maternity during their antenatal visit. They completed the Connor-Davidson Resilience Measure, Relationship Satisfaction Scale and Depression Anxiety Stress Scale. Multiple regression analysis revealed that partner relationship satisfaction negatively predicted emotional distress such that greater partner relationship satisfaction was associated with lower level of emotional distress. Resilience negatively predicted emotional distress such that higher resilience was associated with lower level of emotional distress. The findings underscore the importance of partner relationship satisfaction and resilience in shaping pregnant women's emotional distress and identify both as target for intervention.

Keywords: Emotional Distress, Marriage, Partner Relationship Satisfaction, Pregnancy, Resilience

INTRODUCTION

Very little research has been conducted on the emotional distress profile of women in their first pregnancy globally despite the physiological, psychological, and emotional changes associated with pregnancy (Deleire, Hagen, Wichmann, Wisk, Spear, Cheng, Maddox, & Hampton, 2010). This is most important particularly among women in Nsukka metropolitan city, Enugu state, Nigeria who struggle with how to reconcile their major domestic assignment, meeting up with work or daily trading business demands and at the same time, battling with the challenges of first pregnancy.

Coping with the first pregnancy can be very challenging as there may be an enlargement of the uterine wall (to accommodate the fetus), changes in mood, worries, and increased vulnerability to be aggressive to partner (Costa, Castanheira, Moreira, Correia, Ribeiro, & Pereira, 2007). It has also been observed that in the first trimester, women in their first pregnancy experience a lot of discomfort ranging from early morning fevers, general body weakness to loss of appetite and even vomiting. In extreme cases, such women end up in hospital wards for bed rest all through the period of pregnancy (Lancaster, Gold, Flynn, Yoo, Marcus, & Davis, 2010).

The emotional distress associated with pregnancy may lead to the development of other mental health problems such as Attention Deficit Hyperactivity Disorder (ADHD), conduct disorder and impaired cognitive development (Talge, Neal & Glover, 2007). Thus, in safeguarding the physical and emotional wellbeing of the pregnant mother, the life of the child is also invariably being preserved. More troubling is the fact that for women who may have a history of mental disorders, first pregnancy experience may increase the vulnerability for the recurrence of such mental illness (Smith, Shao, Howell, Lin, & Yonkers, 2011). Importantly, mental health problems during pregnancy may increase the risk of birth complications, preterm birth, and maternal postpartum depression, and may also affect foetus/infant development and the formation of a healthy bond between the mother and her new-born (Guardino & Schetter, 2014; Misund, *et al.*, 2014).

Review of literature have shown that about 10% of pregnant women globally suffer from mental illness such as anxiety and depression (women who fulfil diagnostic criteria for depression and anxiety disorders; World Health Organization, 2008; 2014). Previous studies on pregnant women's mental health have examined specific aspects like depression and anxiety (Rubertsson, Waldenström, & Wickberg, 2003), and broader ones like emotional distress (Faisal-Cury, *et al.*, 2010; Staneva, *et al.*, 2016). Emotional distress during pregnancy is a mental health problem that cannot be ignored since prolonged distress may affect both the mother and the fetus thus resulting in poor pregnancy outcomes such as low infant birth weight and preterm delivery. Distress and anxiety during pregnancy may lead to negative adverse outcomes in offspring, including developmental, behavioural and neuropsychological disorders (Kinsella, & Monk, 2009; O'Donnell, O'Connor, & Glover, 2009). Antenatal stress was also associated with low birth weight

(systematic review and metanalysis) (Lima, *et al.*, 2018).

Investigations from the western world have shown that the risk for depression and other mental health problems during pregnancy may be associated with psychological risk factors including poor relationship with the partner (Lancaster, Gold, Flynn, Yoo, Marcus, & Davis 2010), low or lack of support from the partner (Lancaster, *et al.*, 2010), low support from extended family/friends (Lancaster, *et al.*, 2010; Witt, Deleire, Hagen, Wichmann, Wisk *et al.*, 2010), demographic factors such as low education, single status (Lancaster *et al.*, 2010; Witt, *et al.*, 2010) financial hardship (Lancaster, *et al.*, 2010; Rich-Edwards, Kleinman, Abrams, Harlow, Mc Laughlin, Joffe, *et al.*, 2006); young maternal age (Melville, *et al.*, 2010), many children in the household, high life stress (Lancaster, *et al.*, 2010). Obstetric factors like first pregnancy, a past history of abortion, unintended pregnancy (Lancaster, *et al.*, 2010, Pereira, Lovisi, Pilowsky, Lima, & Legay, 2009), poor pregnancy outcomes (Rich-Edwards, *et al.*, 2006) and a history of depression (Lancaster, *et al.*, 2010, Rich-Edwards, *et al.*, 2006; Pereira, *et al.*, 2009). Antenatal depression was associated with increased risk of premature delivery (systematic review and meta analysis) (Grigoriadis, *et al.*, 2013); whereas child socio-emotional problems were associated with maternal depression (OR 1.79: 95% CI 1.61-1.99) and anxiety (OR 1.56: 95% CI 1.36-1.64) during pregnancy (meta analysis) (Madigan, *et al.*, 2018). Hence, the assessment of psychological distress associated with first time pregnancy in Nigeria particularly among women in Nsukka metropolitan city as well as the identification of psychological resources is very necessary for prevention and intervention programs for both the pregnant woman and the unborn baby during antenatal care. Thus, the present study aimed to examine the

role of resilience and partner relationship satisfaction on emotional distress among Nsukka women in their first pregnancy.

Resilience refers to the ability to bounce back, beat all odds and succeed in the face of adversity. As an individual's characteristics particularly during pregnancy, resilience involves the ability to react flexibly by adjusting the level of self-control in stressful situations such as pregnancy; and also the dynamic ability to maintain and improve the psychological balance. Resilient individuals are able to adjust the level of tension and endurance depending on the situation, and are able to cope successfully with anxiety-provoking and stressful life events (U.S. Department of Health and Human Services, 2015). In other words, resilience can manifest as maintaining or returning to one's original state of mental health and well-being through the use of effective coping strategies. Compared with individuals with low resilience, individuals with high resilience cope more effectively in stressful situations (Kim, 2010; Jang, 2003).

Resilience during pregnancy is important because it strengthens positive emotions (e.g. love, marital satisfaction, relief, hope, self-esteem) and decreases negative emotions (e.g. hate, sadness, guilt, anger, fear, despair, anxiety). In a study by Shinhong, (2016) resilience was found to be negatively correlated with prenatal stress. Additionally, resilience in pregnancy is instrumental to the wellbeing of the mother, the baby and a wide range of other positive pregnancy outcomes. For example, findings from a study by Mautner, Stern, Deutsch, Nagele, Greimel, Lang, *et al.*, (2013) show that women with high resilience experienced less depressive symptoms and better quality of life following pre-eclampsia (a pregnancy condition characterized by high blood pressure sometimes with fluid retention/proteinuria). Similarly, lower maternal resilience was associated with higher risk of preterm birth (Bhatia, Chao, Higgins,

Patel & Crespi, 2015). Personality factors, like dispositional optimism, which are components of resilience, have also been linked to improved physical health (Lobel, DeVincent, Kaminer & Meyer, 2000; Lobel, Yali, Zhu, DeVincent & Meyer, 2002) as well as improved birth outcomes. We therefore wish to explore the association between resilience and emotional distress among Nsukka women in their first pregnancy.

However, most individuals' lives are lived in close relationships to others and satisfaction with such relationships may improve psychological health. This may be very important particularly for Nsukka women in their first pregnancies. Partner relationship satisfaction refers to the degree of love, support and fulfillment that each spouse/partner gets in a marital relationship. Although the partner/spousal relationship represents an important aspect of social life which might be a source of support, love, health and wellbeing, it may also become a troubling factor in life (Stack, & Eshleman, 1998; Bradbury, Fincham, & Beach, 2000) and might be most unbearable in times of pregnancy. On the contrary, research by Lowyck, Luyten, Corveleyn, D'Hooghe, Buyse, and Demyttenaere (2009) revealed that romantic attachment to one's partner was positively related to well-being and relationship satisfaction during fertility treatments. A study conducted on 51 pregnant women revealed that, when women experienced dissatisfied relationship, maternal emotional distress levels were elevated (Røsand, Slinning, Eberhard-Gran, Røysamb & Tambs, 2011). Women with perceived strong support from their partners have lower chances to develop emotional distress (Stapleton, Schetter, Westling, Rini, Glynn, Hobel, *et al.*, 2012). A study by Abdollahpour, Ramezani & Khosravi, (2015) reported that family and social support are strongly associated with outcomes of pregnancy. Evidence has shown that during a stressful event, social support has a suppressing

effect on the level of cortisol and anxiety (Heinrichs, Baumgartner, Kirschbaum & Ehlert, 2003).

Previous studies have revealed that compared with pregnant mothers with low social and emotional support from their partners, family, friends and others, those with high social support are less likely to have complications and psychological problems including distress, anxiety disorders, and depression (Maharlouei, 2016). Studies of post-partum depression have found an association between depression and having no partner or relationship dissatisfaction (Beck, 2001). Considering the fact that women experience great emotional distress associated with pregnancy as evidenced in the reviewed literature, together with the domestic assignment associated with female gender roles in this part of the world, we hope to examine the roles that resilience and partner relationship satisfaction play in emotional distress among Nsukka women in their first pregnancy.

We therefore hypothesized that (1) Resilience will have a significant negative relationship with anxiety, depression and stress among Nsukka women in their first pregnancy. (2) Partner relationship satisfaction will have a significant negative relationship with anxiety, depression and stress among Nsukka women in their first pregnancy.

Methods

Participants

Two hundred (n = 200) Nsukka women in their first pregnancy were randomly selected during their antenatal visits to the following five hospitals: University of Nigeria, Nsukka Medical Centre, Nsukka Health Centre, Nsukka General Hospital, Bishop Shanahan Hospital and Divine Intervention Maternity. Inclusion criteria included: participant aged 18 years and above, being literate enough to be able to respond to the

items on the questionnaire and being in first pregnancy.

Instruments

Depression Anxiety Stress Scale (DASS-21): Emotional distress was measured using the Depression Anxiety Stress Scale (DASS-21 items) developed by Lovibond and Lovibond, (1995). The DASS 21 consists of three subscales with 7 items each and is designed to measure the negative emotional states of depression, anxiety and stress experienced by individuals. The scoring pattern includes levels of severity i.e. mild, moderate and severe; and the score within these levels will show the intensity of Stress, Depression and Anxiety. Validity and reliability of the scale are good. Internal consistency of the DASS subscales was high (Cronbach's alpha) 0.94 for the total score, then 0.85, 0.85, and 0.87 for depression, anxiety, and stress respectively. These values indicate that the DASS-21 has acceptable internal consistency (Anastasi & Urbina, 1997). For the present study, the internal consistency was relatively high with cronbach's alpha of 0.84 for the total score and 0.71, 0.78, 0.74 for depression, anxiety and stress subscales respectively.

Connor-Davidson Resilience Scale (CD-RISC): Resilience was assessed using the 25- item Connor-Davidson Resilience Scale (CD-RISC) developed by Connor-Davidson (2003) as a self-report measure of resilience. Responses to each item are on a five point Likert type format (0 not at all true to 4 true nearly all the time). The CD-RISC has 5 subscales which measure personal competence and tenacity, trust in one's instinct and strengthening effect of stress, accepting change positively, control and spiritual influences. The score ranges from 0-100, where higher scores indicate greater resilience. The CD-RISC has demonstrated good validity and reliability both in clinical and general populations. A cronbach's alpha of 0.79 was obtained for the present study.

Relationship Satisfaction (RS- 10) Scale:

Partner Relationship Satisfaction was measured with the Relationship Satisfaction (RS- 10 items) Scale developed by Røysamb, Vittersø and Tambs (2010). The RS scale is a unidimensional measure with good psychometric properties, high structural and predictive validity (Røysamb, *et al.*, 2010) and correlates 0.92 with The Quality of Marriage Index (Dyrdal, Røysamb, Nes, & Vittersø, 2011). The scale contains 10 items and the response categories range from 1 (strongly agree) to 6 (strongly disagree). The Cronbach’s alpha for the RS scale as reported by Røysamb, Vittersø and Tambs (2010) was 0.91. A cronbach’s alpha of = 0.81 was obtained for the present study.

Procedure

The study was conducted among Nsukka women in their first pregnancy during their antenatal visits to five hospitals. Permission to carry out the study was obtained from the antenatal unit heads of these hospitals and the women were approached and asked if they were willing

to participate in the study. Those who agreed were asked to sign informed consent and then administered the questionnaire. With the help of research assistants, participants were told to follow the instructions on the questionnaires and honestly complete the items as it applied to them. The properly completed questionnaires were analysed using the Statistical Package for Social Sciences (SPSS version 20). A total of 255 copies of the questionnaires were administered and 200 copies were duly completed and returned by the participants.

Design and Statistical Analysis

The design for this study was cross sectional. Pearson Correlation was used to ascertain the bivariate associations between demographic variables (age, years in marriage, educational level, and occupation); resilience, relationship satisfaction, anxiety, depression and stress. Hierarchical multiple regression was used to test the hypothesis. Statistical Package for Social Sciences (SPSS) version 20 was employed for the data analysis.

Results

Mean, standard deviations and correlations among the study variables are presented in Table 1. The results of the hierarchical multiple regressions used to test the hypothesis appear in Table 2.

Table 1: Mean, Standard Deviation, and correlation among the study variables.

Variable	1	2	3	4	5	6	7	8	M	SD
1.Age	-	-	-						29.27	5.14
2. Y-M	-.03	-							-	-
3. Ed. L	-.09	.08	-						2.09	.64
4. Occ	-.03	-.08	-.03	-					9.61	2.02
5. Resil	-.21**	-.08	.18*	.03	-				62.36	24.81
6. R. S	-.22**	-.10	.18*	-.03	.66***	-			35.05	14.64
7. Anx	.23***	-.02	-.11	-.01	-.56***	-.51***	-		12.62	7.86
8. Dep	.36***	.06	-.14	-.02	-.59***	-.55***	.52***	-	12.44	7.93
9. Stress	.17*	.10	-.10	-.04	-.46***	-.48***	.43***	.47***	13.68	8.16

Note: * = P< .05, ** = P< .01, *** = P< .001; Y-M = Years in Marriage coded as: 0= 1 to 3years, 1= 4years and above; Ed. L = Educational Level coded as: 0= SSCE to OND; 1= B.Sc and above; Occ = Occupation coded as 0= ununemployed, 1= employed; R.S = Relationship Satisfaction, Resil= Resilience, Anx= Anxiety, Dep = Depression.

The result in Table 1 indicate that among the demographic variables, age had significant positive correlations with Anxiety ($r = .23, p < .001$), Depression ($r = .36, p < .001$) and Stress ($r = .17, p < .05$). This implies that first time pregnant women who are older in age experienced greater anxiety, depression and stress. Years in marriage, educational level and occupation were not significantly correlated with any of the three dimensions of emotional distress. The correlation between resilience and relationship satisfaction was significant and positive ($r = .66, p < .001$). This implies that first time pregnant women who had greater resilience abilities also had greater satisfaction in their relationships. There was a significant negative correlation between resilience and Anxiety ($r = - .56,$

$p < .001$), Depression ($r = - .59, p < .001$) and stress ($r = -.46, p < .001$). This implies that first time pregnant women who had greater resilience abilities experienced lower levels of anxiety, depression and stress. Relationship Satisfaction significantly and negatively correlated with Anxiety ($r = -.51, p < .001$), Depression ($r = -.55, p < .001$) and stress ($r = -.48, p < .001$). This implies that first time pregnant women with greater satisfaction in their relationship experienced lower levels of anxiety, depression and stress. Anxiety was significantly and positively correlated with depression ($r = .52, p < .001$), and stress ($r = .43, p < .001$), while depression was significantly and positively correlated with stress ($r = .47, p < .001$)

Table 2: Hierarchical Multiple Regression for predictors of Emotional Distress

Variable	Anxiety			Depression			Stress		
	Step 1 B	Step 2 B	Step 3 B	Step 1 B	Step 2 B	Step 3 B	Step 1 B	Step2 B	Step 3 B
Controls									
Age	.26***	.15	.13*	.35***	.25***	.23***	.16*	.08	.05
Y-M	-.01	-.06	-.08	.08	.02	.01	.11	.07	.05
Ed.L	-.09	.01	.02	-.11	-.02	-.01	-.01	-.03	-.01
Occ.	-.01	.01	-.01	-.01	.01	-.01	-.03	-.02	-.04
Predictors									
Resil		-.54***	-.41***		-.53***	-.37***		-.43***	-.23**
R. S			-.24**			-.26**			-.32***
AdjustedR ²	.061	.330	.357	.132	.394	.427	.031	.198	.251
ΔR ²	.080	.267	.030	.149	.260	.036	.050	.168	.055
ΔF	4.235**	79.117***	9.334	8.543***	85.332***	12.336**	2.569*	41.753***	14.614

Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$.

The results of the first hierarchical multiple regression in table 2 in which anxiety was the criterion variable, indicated that the demographic variables (i.e. age, years in marriage, education and occupation) entered in step 1 of the equation as controls, collectively accounted for 6.1% variance in anxiety,

with age ($\beta = .26, p < .001$) making significant positive contribution to the prediction of anxiety. Years in marriage, education and occupation however did not contribute significantly to the prediction of anxiety. The addition of resilience in step 2, accounted for an additional 26.7% variance in anxiety over and above the

control variables. Hence, resilience was a significant negative predictor of anxiety ($\beta = -.54, p < .001$). When relationship satisfaction was added in step 3 of the equation, it accounted for an additional 3% variance in anxiety. Relationship satisfaction was a significant negative predictor of anxiety ($\beta = -.24, p < .01$).

The results of the second hierarchical multiple regression in Table 2 in which depression was the criterion variable, indicated that the demographic variables (i.e. age, years in marriage, education and occupation) were entered in step 1 of the equation as controls, and collectively accounted for 13.2% variance in depression, with age ($\beta = .35, p < .001$) making significant positive contribution to the prediction of anxiety. However, years in marriage, education and occupation did not contribute significantly to the prediction of depression. When resilience was entered in step 2 of the equation, it accounted for additional 26% variance in depression over and above the control variables. Specifically, resilience was a significant and negative predictor of depression ($\beta = -.53, p < .001$). Lastly, relationship satisfaction was entered in step 3 of the equation and it accounted for additional 3.6% variance in depression which is below the control variables and resilience. Relationship satisfaction was a significant negative predictor of depression ($\beta = -.26, P < .001$).

The results of the third hierarchical multiple regression in Table 2 in which stress was the criterion variable, indicated that the demographic variables (i.e. age, years in marriage, education and occupation) entered in step 1 of the equation as controls, collectively accounted for 3.1% variance in stress, with age making significant positive contribution to the prediction of stress ($\beta = .16, p < .05$). Years in marriage, education and occupation did not contribute significantly to the prediction of stress. When resilience was entered in step 2 of

the equation, it accounted for an additional 16.8% variance in stress over and above the control variables. Resilience was a significant negative predictor of stress ($\beta = -.43, p < .001$). Finally, the inclusion of relationship satisfaction in step 3 of the equation accounted for additional 5.5% variance in stress over and above the control variables but lower than resilience. Therefore, relationship satisfaction was a significant negative predictor of stress ($\beta = -.32, p < .001$).

Discussion

This study investigated the role of resilience and partner relationship satisfaction on emotional distress among Nsukka women in their first pregnancy. Our findings revealed that resilience was significantly and negatively associated with anxiety, depression and stress among Nsukka women in their first pregnancy. This finding is consistent with previous research (Mautner, Stern, Deutsch, Nagele, Greimel, Lang, *et al.*, 2013; Kim, 2010; Jang, 2003). Anxiety is a nervous disorder marked by excessive uneasiness and a state of being anxious; hence people with high resilience tend to feel less anxious in the face of anxiety provoking situations such as first time pregnancy than those with low resilience. For instance, being pregnant for the first time is enough to raise anxiety related thoughts of the possible outcome; but the resilient woman is equipped with psychological resources needed to overcome such thoughts and a subsequent successful delivery.

Importantly, antenatal depression has been associated with a range of negative offspring outcomes; higher risks of premature birth, low birth weight, intrauterine growth restriction, child emotional and behavioural problems, cognitive difficulties and later depression (Stein, *et al.*, 2014). The findings of the current study imply that resilient women are able to cope successfully with any situation that tends to bring emotional

distress during pregnancy. Thus, Nsukka women with high resilience experienced less depressive symptoms and better quality of life following pre-eclampsia (a pregnancy condition characterized by high blood pressure sometimes with fluid retention/ proteinuria). Presence of stress during pregnancy may lead to different perinatal difficulties that may have long-term consequences on the newborn. In a study by Shinhong, (2016) resilience was found to be negatively correlated with prenatal stress such that increased resilience was associated with decreased stress. This implies that irrespective of the magnitude of stress, highly resilient women who are pregnant can successfully cope with it and still remain strong till the time of delivery.

The result of the study also shows that partner relationship satisfaction had a significantly negative relationship with anxiety, depression and stress among first time pregnant Nsukka women. This is consistent with previous studies by (Abdollahpour, Ramezani, & Khosravi, 2015; Heinrichs, Baumgartner, Kirschbaum, & Ehlert, 2003;). The quality of marital relationship and social support plays a vital role in determining the psychological health status of a pregnant woman. However, a pregnant woman with good partner relationship may experience less distress knowing that whatever the situation, she has strong support system from her spouse and significant others.

A study by a Swedish with 3011 pregnant women showed that lack of partner support was the most important risk factor for depressive mood (Rubertsson, *et al.*, 2003). Thus, good partner relationship satisfaction improves the mental health of pregnant Nsukka women. Result of a study conducted on 51 pregnant women to reveal whether satisfactory relationship during pregnancy can guard against risk factors including somatic disease, emotional difficulties, and work stress; found that, if the women experienced dissatisfied relationship, then

it can become the largest cause of maternal emotional distress (Røsand, Slinning, Eberhard-Gran, Røysamb, & Tambs, 2011; Stapleton, Schetter, Westling, Rini, Glynn, Hobel, & Sandman, 2012). Marital relationship gives couples the opportunity to shear their emotional burdens and worries together. The above findings therefore suggests that first time pregnant women in Nsukka who are satisfied in their relationship with spouse, family, friends and significant others may find it less stressful to go through the huddle of pregnancy successfully.

Limitations

One of the limitations of this study include the cross sectional nature of the study which may not allow for generalizability of the findings. Subsequent research in this area should consider experimental method. Another limiting factor is the use of self report measures (questionnaire); and also fatigue resulting from several items of the questionnaire being completed by the participants. Time frame is another limitation encountered, as it took several weeks to distribute and collect the questionnaires; hence some questionnaires were lost in the process thus reducing the intended number of participants.

Implications

Despite the limitations of the study, there are still implications for future research and intervention. However, better understanding is needed with regards to the independent effect of these variables (resilience and partner relationship satisfaction) on emotional distress among women with first pregnancy. The results of this study therefore implies that high resilience and partner relationship satisfaction play vital role in ensuring that women with first pregnancy, will experience low emotional distress. Couples earlier identification and understanding of the problems that can influence their marital relationship quality especially during pregnancy and their

ability to learn and resolve their differences effectively, brings full enjoyment at this phase of pregnancy (Das, 2014). Thus, based on this assumption, intervention should consider resilience training and fostering supportive relationships from spouse as it has positive effect on mental health and wellbeing of pregnant Nsukka women. It helps to bring forth the feelings of happiness/satisfaction; and makes pregnancy related changes less stressful for the expectant mothers.

It is recommended that women with first pregnancy share their feelings and experiences with other women who have already experienced this phase, to ease off tension, anxiety and encourage them to prepare for positive outcomes. Also antenatal care providers at any of the antenatal visits should schedule couple therapy for the couples aimed at giving them vital information about the emotional health of pregnant women, importance of spousal support; and its effects on women's mental health, and wellbeing.

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