Assessment of self-esteem in pregnant women using Rosenberg's Self-Esteem Scale*

AVALIAÇÃO DA AUTOESTIMA DE GESTANTES COM USO DA ESCALA DE AUTOESTIMA DE ROSENBERG

EVALUACIÓN DE LA AUTOESTIMA DE GESTANTES CON USO DE LA ESCALA DE AUTOESTIMA DE ROSEMBERG

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ABSTRACT

The objective of this descriptive, cross-sectional study was to evaluate the self-esteem of 127 pregnant women seen in a prenatal care program conducted in a public school hospital. Data collection was performed using the Rosenberg's Self-esteem Scale; unsatisfactory self-esteem was related to socio-demographic and health variables of the pregnant woman, and to the presence or absence of support systems. Descriptive and univariate statistical analysis were used to assess possible associations. Pregnant women who had low scores for self-esteem were 60% of all subjects. As for the socio-demographic data, women with fewer years of education presented higher frequency of lower self-esteem scores, which disagrees with other studies. Pregnant women who report having an *unplanned pregnancy* presented higher prevalence of low self-esteem than those who reported having planned their pregnancy. The lack of support from the partner to look after the baby was also associated to the pregnant women's low self-esteem. Other associations between variables were not statistically significant.

KEY WORDS

Pregnant women.
Self concept.
Prenatal care.
Women's health.

RESUMO

O objetivo deste estudo descritivo e transversal foi avaliar a autoestima de 127 gestantes atendidas em programa de pré-natal de um hospital público de ensino. Os dados foram colhidos usando-se a Escala de Autoestima de Rosenberg; a autoestima insatisfatória foi relacionada a variáveis sócio-demográficas, de saúde da gestante e da presença ou não de sistemas de apoio. Os dados foram submetidos à análise estatística descritiva e análise univariada, buscando possíveis associações. As gestantes com autoestima insatisfatória totalizaram 60% da amostra. Em relação aos dados sócio-demográficos, as mulheres com menor escolaridade apresentaram maior frequência de escores de autoestima insatisfatória, divergindo de resultados de outros estudos. As gestantes que referiram *gestação não planejada* apresentaram maior prevalência de autoestima insatisfatória do que aquelas que referiram tê-la planejado. A ausência de apoio do parceiro para cuidar do filho após seu nascimento também esteve associada a menor autoestima nas grávidas. Não foram encontradas relações estatisticamente significativas para as demais variáveis estudadas.

DESCRITORES

Gestantes.
Autoimagem.
Cuidado pré-natal.
Saúde da mulher.

RESUMEN

El objetivo de este estudio descriptivo y transversal fue evaluar la autoestima de 127 gestantes atendidas en el programa prenatal de un hospital público de enseñanza. Los datos fueron recolectados utilizando la Escala de Autoestima de Rosenberg; la autoestima insatisfactoria se relacionó con variables socio-demográficas, de salud de la gestante y de la existencia o no de sistemas de apoyo. Los datos fueron sometidos a análisis estadístico descriptivo y a análisis univariado, buscando posibles asociaciones. Las gestantes con autoestima insatisfactoria totalizaron el 60 % de la muestra. En relación a los datos socio-demográficos, las mujeres con menor escolarización presentaron mayor frecuencia de puntajes de autoestima insatisfactoria, divergiendo de resultados de otros estudios. Las gestantes que refirieron *embarazo no planificado* presentaron mayor prevalencia de autoestima insatisfactoria respecto de aquellas que refirieron haber planeado su gravidez. La ausencia de apoyo del compañero para cuidar del hijo con posterioridad al nacimiento también estuvo asociada a menor autoestima en las embarazadas. No se encontraron relaciones estadísticamente significativas para las demás variables estudiadas.

DESCRIPTORES

Mujeres embarazadas.
Autoimagen.
Atención prenatal.
Salud de la mujer.

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INTRODUCTION

The literature highlights the importance of the mental health care of pregnant women and its relation to the development of the bond mother-child[1-4]. However, there is still a lack of information about prenatal programs that effectively approach the emotional questions, aimed at helping the woman deal with the gestational process and the maternity. Considering the repercussion of the emotional aspects of the woman in the development of the bond to her child, the authors of this study aimed to assess the self-esteem of a group of pregnant women through the application of an assessment scale.

The emotional bond, attraction felt by one individual to another, is here understood as the development of an emotional commitment that leads the mother to try to satisfy the needs of her child, from feeding and hygiene needs to care and comfort[5]. Authors[6-7] indicate in their studies that the relation built by a mother to her child is the result of, among other things, emotional experiences lived by them during their childhood and their life. If these experiences were difficult, they will possibly cause problems in the process of the bond development[3,6].

Every mother is able to take care of her baby, she only needs to be involved, confident and dedicate herself, which will be proportional to the intensity of the bond established in relation to the child[1,8]. In addition, according to the results of recent studies, the woman's level of self-esteem is essential for the development of affection towards her child[9-11].

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Self-esteem is the sense of value that an individual has about herself and that begins to be shaped in the daily life of childhood. It has a great importance in the relationship of the individual with herself and with others, influencing the perception of events and mainly her behavior. The success in face of a challenge depends on the emotional state of the individual, which is directly related to the self-esteem quality and the level of confidence[5]. Thus, in face of the challenges of the maternity, the better the emotional state of the woman the higher her chances of being successful in this task.

Therefore, the review of the literature showed that the interventions that enhanced the bond, causing an improvement in the maternal performance of tasks towards the baby, were those that included the care to the woman's emotional state due to the pregnancy. The authors also indicate the need to develop more studies with mothers about the self-esteem and its relation to the bond mother-child[10-11].

In prenatal care, the main themes approached by health professionals towards the women, both in the individual care and in group, are still limited to the physiological questions of the pregnancy, the delivery and the postpartum, emphasizing the care to the baby[2]. This type of approach is not only necessary, but certainly favors the bond and consists in an advance. However, it is still limited, since it emphasizes the baby and its health during the pregnancy and the postpartum, to the detriment of the mother's needs as an individual being[3]. Over thirty years ago, an author[1] had already stated that setting the woman's needs aside is one of the factor that most contributes to the low self-esteem and to trigger other negative feelings during emotionally fragile periods.

The discussion about the importance of the self-esteem in the construction of the bond mother-child has been developed by several authors[1,8-11]. Nevertheless, there are few studies that evaluate the self-esteem of pregnant women, which may indicate the little value given to this type of assessment in prenatal care, either due to the limits of the professionals' education or to the structure of the health care services. Therefore, there was the interest to develop a study that would perform such assessment, establishing subsidies for the proposal of interventions in the prenatal care, which include directing patients to specialized professionals.

OBJECTIVES

The general objective of this study was to assess the self-esteem of pregnant women. The specific objectives were: 1 - Checking the prevalence of low self-esteem among pregnant women; 2 - Identifying whether there is a relation between their self-esteem and their socio-demographic data, health condition, as well as the support given by their partner and family.

METHOD

This is an observational, descriptive and cross-sectional study, developed with pregnant women seen in a school hospital in the interior of the state of São Paulo, which assists users of the Unified Health System (UHS) from the metropolitan region of Campinas. It is a tertiary hospital whose obstetric care activities are distributed among eight outpatient units: High Risk Prenatal; Specialized Prenatal; Prenatal for Adolescents; Postpartum Review; Postpartum Review for Adolescents; Fetal Medicine and Recurrent Abortion.

The present study was developed at the High Risk Prenatal Unit (HRPU) which, despite of its name, does not aim to assist pregnant women with aggravated risk, because they are assisted by the Specialized Prenatal Unit. In fact, this outpatient unit receives pregnant women of spontaneous demand and those who prefer not to return to the Basic Health Units (BHU), after being assisted by the Specialized Prenatal and released to do so. This outpatient unit

assists around 60 women every month, in medical or nursing appointments, educational groups and multiprofessional groups when necessary.

All pregnant women who were in the second trimester of pregnancy were included in this study: due to the lower chance of occurring frequent symptoms in the first trimester of pregnancy (ambivalent feelings regarding the pregnancy discovery, dizziness and nausea) and the difficulties resulting from a heavier body, as it happens in the last trimester. The authors considered that these symptoms could negatively influence the levels of self-esteem obtained in this sample. Adolescents were not included in order to obtain a more homogenous sample.

Data were collected from February to March of 2007. The first author of this study, in possession of the unit's patient list, selected the pregnant women who fit the established criteria and searched for a place near the waiting room, where it was possible to talk to the patient without interruptions and interferences.

The study had the participation of 127 pregnant women. The sample calculation was performed with an estimated target-population (180 pregnant women) for the collection period of three months, considering: sample error – 0.5; mean – 30.2 and standard deviation – 2.1 for the scores obtained in a pre-test performed with 12 pregnant women. The level of bilateral significance (alpha) considered was 0.05.

The studied variables were: self-esteem level, measured by the Rosenberg's Self-esteem Scale[12]; socio-demographic characteristics[4] (age, education, occupation, marital status, relationship with the baby's father) and health characteristics[4] of the women (number of pregnancies, number of children alive, gestational age, gestational age in which she started the prenatal care, mood change, planned or unplanned pregnancy, concerns about the pregnancy, reason why she keeps the prenatal at the institution); and data about support sources[1,3] identified by them (help to take care of the child). Regarding the variable *occupation*, the answer *housewife* refers to housekeeping chores developed without payment; whereas *informal work* would be a paying job with a record on their employment book, and *formal work* was considered a paying job with this record.

Rosenberg's Self-esteem Scale proposes a unidimensional measure with ten items aimed to globally assess the positive or negative attitude of the individual towards himself. This scale, which was developed by Rosenberg in 1965, is easy to apply and has been broadly used and internationally recognized. In Brazil, recent studies have demonstrated its reliability and pointed out the importance of its use in different populations[13-14]. The present study used a version with transcultural adaptation that is considered efficient[12], which is presented as an attachment.

The score obtained with the scale may vary from 10 to 40, calculated through the sum of the scores obtained from the answers given to the 10 statements. Each statement may receive a score from 1 to 4. A satisfactory self-esteem is defined as higher or equals to 30 at the Rosenberg's Scale, or dissatisfactory with a score lower than 30[12].

During data collection, the pregnant women would read the statements on a card in their hands or, in case they preferred, the statements were read by the interviewer. At each statement, the women were instructed to give their opinion saying whether they *strongly agreed*, *agreed*, *disagreed* or *strongly disagreed* with the statement. The options of answers were presented in a different order right under each statement in order to stimulate the women to search for the option that would suit them best, without answering automatically or in a thoughtless way.

Considering the ethical aspects, before starting the instrument application, the author explained the objectives of the study and the content of the Term of Free and Clarified Content, explaining that the interviewee's identification would be confidential. The Term was read and signed by all pregnant women in the sample, who kept a copy of the Term. This study was approved by the Committee of Ethics in Research from the School of Medical Sciences of the University of Campinas (UNICAMP), being the document issued under the number 661/2006.

The database program used for the study was Epi Info. The statistical analysis was performed with the software *Statistical Package for the Social Sciences* (SPSS), version 14.0. The data collected were submitted to a descriptive statistical analysis. An association test was performed between the main variable (score at the Rosenberg's Self-esteem Scale) and other variables using the chi-square or the exact test of Fischer.

Cronbach's alpha coefficient was calculated in order to check the internal consistence of the scale, obtaining the result of 0.76. It demonstrated that no item compromised such consistence.

RESULTS

The women presented gestational ages that varied between 13 weeks and 27 weeks and six days. Over half of the interviewees (60.6% = 77 women) presented dissatisfactory self-esteem. The socio-demographic and health data of the 127 pregnant women are presented in Table 1.

There was a prevalence of pregnant women with unfinished high school education (34.6% = 44 women), with a stable partner (92.9% = 118 women), referring a good relationship between the couple (92.9%) and with satisfactory family support. Most of the interviewees do not have a professional activity (57.5% = 73 women), as Table 2 shows.

In addition, most of the women (67.7% = 86 women) did not plan the pregnancy and stated they had concerns about it. The mood change, as an increase in irritability, was mentioned by approximately half of the women (Table 2).

Table 3 shows the relation between the score of dissatisfactory self-esteem and the characterization variables of the sample. Table 4 shows the relation between the score of dissatisfactory self-esteem and the frequency of the other variables regarding the pregnancy, prenatal, health conditions and relationship with the baby's father.

Table 1 - Characterization of the pregnant women regarding their socio-demographic data - Campinas - 2007

Variables	N	%
Age		
20-29	78	61.4
30-40	42	33.1
> 40	7	5.5
Education		
Finished Elementary School	18	14.2
Unfinished Elementary School	35	27.6
Finished High School	44	34.6
Unfinished High School	16	12.6
Finished College	7	5.5
Unfinished College	7	5.5
Occupation		
Retired	1	8
Autonomous	8	6.3
Student	8	6.3
Housewife	73	57.5
Formal work	28	22
Informal work	9	7.1
Marital Status		
Partner	118	92.9
No partner	9	7.1
Previous pregnancies		
>1	64	50.4
1	32	25.2
0	31	24.4
Number of children alive		
>1	45	35.4
1	35	27.6
0	47	37
Gestational age		
13 weeks to 20 weeks + 6 days	61	48
21 weeks to 27 weeks	66	52

Table 2 - Variables regarding the pregnancy, health conditions, relationships and support sources of the pregnant women - Campinas - 2007

Variables	N	%
Relationship with the baby's father		
Good	118	92.9
Bad	9	7.1
Prenatal start		
1º trimester	87	68.5
2º trimester	40	31.5
Pregnancy planning		
Yes	41	32.3
No	86	67.7
Pregnancy complication		
Disease with repercussion only to the fetus	22	17.3
Mother's own disease	61	48
Prematurity or previous miscarriages	24	18.9
Others	20	15.8
Help to take care of the baby		
Yes	105	82.7
No	22	17.3
Source of help*		
Family	76	72.4
Husband	10	9.5
Family and husband	19	18.1
Concern about the pregnancy		
Yes	98	77.2
No	29	22.8
Type of concern**		
Health of the baby/mother	53	54.1
Delivery	24	24.5
Others	21	21.4
Perception of the mood change		
Yes	94	74
No	33	26
Type of mood change ***		
Joy	18	19.1
Instability	15	16
Irritation	44	46.8
Sadness	17	18.1

***** Calculation performed considering the total number of women who are going to be helped (105). ** Calculation performed considering the total number of women with some type of concern (98). *** Calculation performed considering the total number of women with mood changes (94).

Table 3 - Relation between the socio-demographic variables and the score of dissatisfactory self-esteem - Campinas - 2007

Variables	Score of dissatisfactory self-esteem		P
	N	%	
Age			
20 - 29	51	66.2	
30 - 40	22	28.6	0.346
>40	4	5.2	
Education			
< 8 years	72	93.5	0.043
≥8 years	5	6.5	
Occupation			
Formal work	25	32.5	
Student	5	6.5	0.533
Housewife	47	61	
Marital status			
Living in the same house	70	90.9	0.235
Living in separate houses	7	9.1	
Number of previous pregnancies			
>1	39	50.6	
1	21	27.3	0.703
0	17	22.1	
Number of children alive			
>1	28	36.4	
1	23	29.9	0.613
0	26	33.7	
Gestational age			
13 weeks to 20 weeks + 6 days	35	45.4	0.295
21 weeks to 27 weeks + 6 days	42	54.6	

Adopted level of significance p< 0,05

DISCUSSION

The age group of the pregnant women in the sample was not significant in the determination of the self-esteem. The literature review presented some authors pointing out that the older the woman the higher her self-esteem level[15]; whereas others state this relation does not exist[6-7,16].

This study found a significant relation between the low level of education and dissatisfactory self-esteem levels, p=0.04 (Table 3), which disagrees with the results of other studies[6-7,16]. Regarding the women's occupation and their marital status, these variables did not show a relation with the levels of self-esteem.

Differently from the findings of other authors[1,17-18], the fact of having or not having a job did not influence significantly the self-esteem scores in this sample. Nevertheless, the pregnant women had the need to talk about their perception of their work activity: doing house keeping activities was considered an activity of lower value by some of the interviewees, who said they were *just housewives*. Those who had a job (formal or informal) were very apprehensive regarding the possibility of losing it due to the pregnancy, not to mention the concern about their ability to conciliate work and motherhood. Those women who were concerned about this conciliation issue were specially concerned about the maintenance of their job so that they could provide for the house and the new family member.

Unlike the expectation of the authors, the relationship with the baby's father being considered bad by the interviewee did not influence negatively their self-esteem score. Besides, there was no significant relation found between

Table 4 - Relation between the variables regarding the pregnancy, health conditions, relationships and dissatisfactory self-esteem score - Campinas - 2007

Variables	Dissatisfactory Self-esteem Score		P
	N	%	
Relationship with the baby's father			
Good	70	90.9	0.235
Bad	7	9.1	
Prenatal start			
1º trimester	50	64.9	0.19
2º trimester	27	35.1	
Pregnancy planning			
Yes	19	24.7	0.019
No	58	75.3	
HRPU reason			
Disease with repercussion only to the fetus	16	20.8	
Mother's own disease	37	48	0.516
Prematurity / previous miscarriages	14	18.2	
Others	10	13	
Help to take care of the baby			
Yes	63	81.8	0.358
No	14	18.2	
Partner's help			
Yes	13	16.9	0.042
No	64	83.1	
Concerns about the pregnancy			
Yes	60	77.9	0.482
No	17	22.1	
Type of concern *			
Delivery	13	21.7	
Baby/mother's health	33	55	0.832
Others	14	23.3	
Perception of mood change			
Yes	58	75.3	0.414
No	19	24.7	
Type of mood change **			
Negative	50	86.2	0.046
Positive	8	23.8	

Adopted level of significance p< 0,05. * Calculation performed considering the total number of women who stated to be concerned about the pregnancy (60). ** Calculation performed considering the total number of women who stated to perceive the mood change (58).

the women's self-esteem level and the number of previous pregnancies or that of children alive, which corroborated the reviewed literature[6-7].

Other variables that did not present a statistically significant relation to the self-esteem scores were: the gestational age at the moment of the interview; the trimester in which they started the prenatal care; concerns about the pregnancy and the possibility of receiving or not receiving support to take care of the baby.

This support is discussed in the literature under different perspectives: even though the social support to the woman is considered important[3], it is also observed that conflicts between and woman and her family members, who get closer in this period (pointed out by 72% of the women in this study as a probable source of support), may disturb her experience instead of keeping her calm[1].

Despite of the fact that the relation between self-esteem and the perception of mood change was not statistically relevant, the type of change – when negative, with feelings like sadness and irritability – indicated a significant influence to the low self-esteem (p=0.046).

Having an unplanned pregnancy influenced negatively the self-esteem of the women in this sample, presenting a relation of statistical significance (p=0.019). The unexpected pregnancy was a concern due to different reasons: the woman's health as a complicating factor of the pregnancy, the end of the relationship with the partner and the financial impact on the family. Considering this question of the unplanned pregnancy and its interference in the development process of the bond mother-child, authors[6] highlight that, added to other problems, the fact of not having planned or wished the birth of the child makes several women react surprised and confused regarding the mother role, presenting difficulties in the development of the bond.

The lack of support from the partner after the baby's birth also presented a statistical significance related to the dissatisfactory self-esteem level of the interviewees (p=0.042). This fact corroborates another study[11] that points out the lack of support from the partner as a risk factor for mental health problems in the mother.

The pregnancy is certainly a process experienced in a singular way by each woman, representing various meanings not only for her, but for her family. Regardless the circumstances, the woman needs full receptivity from those who provide care, allowing conditions for a positive and constructive experience of pregnancy and maternity[19]. Therefore, the self-esteem is something that must be considered in the prenatal care.

CONCLUSION

A high prevalence of dissatisfactory self-esteem was found among the pregnant women in the studied group with the application of Rosenberg's Self-esteem Scale.

Regarding the characterization of the subjects, the group presented, in a predominant way, unfinished high school education (34.6% = 44 women), a stable partner (92.9% = 118 women), good relationship with the partner (92.9%) and satisfactory family support. Most of the women did not perform any professional activity, did not plan the pregnancy and presented a chronic disease, which made them worry about the baby's birth.

As for the correlations between the results obtained with the use of the scale and the other studied variables, it was observed that:

- Regarding the socio-demographic data, the women with less education presented a higher frequency of dissatisfactory self-esteem scores, unlike the results of other studies;

- The pregnant women who stated they had an *unplanned pregnancy* presented a higher prevalence of dissatisfactory self-esteem than those that had planned the pregnancy, which was similar for those women who reported negative mood changes;

- The lack of support from the partner to take care of the baby after its birth influenced negatively the self-esteem.

- There were no statistically significant relations found for the other variables proposed in this study.

- The fact that this study did not include the loss of previous children as a variable is considered a limitation, since an expressive number of women stated a number of pregnancies higher than the number of children alive.

FINAL CONSIDERATIONS

Since the level of self-esteem of pregnant women is indicated in the literature as one of the main factors for her bonding to the child, the prenatal care offers an opportunity to study this aspect, with a consequent proposal of interventions. Rosenberg's Self-esteem Scale was considered an instrument that is easily applied and may assist this study process.

The reapplication of this study in other populations is considered relevant since it is not possible, through the present study, to check whether the low level of self-esteem found in this sample is a factor related to the stage of life of these women or to a previous condition.

The pregnancy is an ideal period for interventions that aim at, among other things, a discovery work of the future mother about herself and her new role. The professional must show comprehension and care towards her feelings, which also favors her welfare and the bond to her child. Therefore, it is considered necessary to elaborate a set of actions aimed at the women with the profile outlined in this study, which may be applied in this group and in others. It is suggested that these actions include opportunities of discussion, with a supervision of the pregnant women's

statements regarding their self-concept, encouraging them to identify the positive aspects of their experiences and individual characteristics.

During the prenatal care, it would be convenient to guarantee moments for discussions about the expectations regarding the maternity, feelings during the pregnancy, the participation or non-participation of the partner and concerns about the pregnancy or resulting from it: social-economical condition; difficulties to conciliate work, housework and the execution of other daily activities and the role as a mother; health problems during the pregnancy, among other matters. This could favor the verbalization of discomforts and feelings that may be disturbing the pregnancy process and that could not be exposed and received in a different way.

The process of prenatal care needs strategies that favor the perception of the pregnancy as a significant event instead of a burden. An event that, if faced as a challenge, must be accepted with the establishment of realistic objectives, valuing each progress. Considered as a part of the prenatal care program, it is worth highlighting the need for multidisciplinary interventions, with the participation of doctors, nurses, psychologists and social workers, who are present in most of the services.

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Attachment

Rosenberg's Self-esteem Scale

The scale is a ten item Likert scale with items answered on a four point scale - from strongly agrees to strongly disagree.

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

1. On the whole, I am satisfied with myself.

SA -A -D -SD

2. At times, I think I am no good at all.

SA -A -D -SD

3. I feel that I have a number of good qualities.

SA -A -D -SD

4. I am able to do things as well as most other people.

SA -A -D -SD

5. I feel I do not have much to be proud of.

SA -A -D -SD

6. I certainly feel useless at times.

SA -A -D -SD

7. I feel that I'm a person of worth, at least on an equal plane with others.

SA -A -D -SD

8. I wish I could have more respect for myself.

SA -A -D -SD

9. All in all, I am inclined to feel that I am a failure.

SA -A -D -SD

10. I take a positive attitude toward myself.

SA -A -D -SD

Scoring: SA=3, A=2, D=1, SD=0. Items with an asterisk are reverse scored, that is, SA=0, A=1, D=2, SD=3. Sum the scores for the 10 items. The higher the score, the higher the self-esteem. Scores below 15 suggest low self-esteem.

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