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Comparison of Resilience, Cognitive Emotion Regulation and Metacognitive Beliefs of Primiparous and Multiparous Women

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Abstract

Background: The aim of this present study was the comparison of resilience, cognitive emotion regulation, and metacognitive beliefs of primiparous and multiparous women in Rasht.

Methods: The current research was a cross-sectional analytic study. The participants of this research were all of the primiparous and multiparous women who referred to Rasht hospitals between June and October in 2016. A total of 120 persons (60 primiparous and 60 multiparous women) selected by the random clustering sampling method. The Connor-Davidson resilience scale assessed the participants, cognitive emotion regulation questionnaire by Granfsky et al and Wells et al. metacognition questionnaire. Data analysis have done by using the multivariate variance analysis by SPSS v. 22 software.

Results: The findings showed that there were significant differences in resilience, cognitive emotion regulation, and metacognitive beliefs between primiparous and multiparous women ($P<0.001$).

Conclusion: The results illustrated that there were significant differences in primiparous and multiparous women in resilience, cognitive emotion regulation, and metacognitive beliefs. It seems that training and practical steps to upgrade them as necessary.

Keywords: Resilience; Cognitive emotion regulation; Metacognitive beliefs; Pregnancy.

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Introduction

Childbirth is a natural event and has long antecedence.[1] Various factors such as therapeutical interventions, fatigue, drugs, womb tension, and finally, mother's anxiety are known as first childbirths experiences.[2] Resilience is known as a human adjustment ability against events, overcoming, and be reinforced by related experiences. This state expanded by human internal ability and social skills and has shown as a positive trait.[3] According to Werner and Smith, resilience is the human self-adjustment natural mechanism and believes that persons with more resilience have more flexible than others.[4] Shebi and Ghafari research showed that there is a significant difference in the resilience level of pregnant & un-pregnant women.[5] According to Modaress et al, there is a significant relationship among baby feed, problems related to baby caring baby, weight, and mental factors such as life stressful events with childbirth traumatic stress disorder.[6] Emotion cognitive regulation is essential for the researcher because of little research about its role in childbirth experience. Persons adjust their emotions consciously or unconsciously by emotion cognitive adjustment.[7] Persons always use systematic strategies to adjust the severity of their emotional experiences. Successful regulation of emotion is related to health consequences, interpersonal communications, consistent occupational performance.[8] Cognitive regulation of emotion refers to the cognitive method of emotion stimulating information management.[9] On the other words, cognitive regulation strategies of emotion refers to the way of persons thought after a negative experience.[10] According to Troy and Mauss, a person's ability in the regulation of their emotions may be an essential factor in determining their resilience.[11] Cognitive regulation of emotion includes using cognitive-behavioral strategies to change an emotion experience severity. Metacognitive believes known as the other active factors upon childbirth.[12] This model to explain mind-controlling consists of 2 parts: cognitive activity and metacognition (it adjusts and assesses this cognitive activity). Metacognition consists of a person's believes about self, metacognitive experiences, and metacognitive strategies.[13] According to the research records, negative metacognition believes about being uncontrollable, and anxiety may predict

depression and anxiety significantly.[14] The reason for many mental disorders of pregnant women is related to being unfamiliar with natural changes in pregnancy. Therefore, young persons need more instruction and attitude change toward pregnancy. No research has done about this subject in our country. Therefore, this research is necessary to improve pregnancy state. According to the mentioned statements, the researcher question is: Is there a difference between the primiparous and multiparous women in resilience, cognitive emotion regulation, and metacognitive believes?

Materials and Methods

The current research was a cross-sectional analytic study. The participants of this research consist of all primiparous and multiparous women who referred to Rasht hospitals between June and October in 2016 (including 700 women). One hundred and twenty persons (60 primiparous women and 60 multiparous women) selected by the random clustering sampling method. In the beginning, 5 hospitals, ten women & maternity clinics selected, then subjects were selected by a simple random method. Two groups matched in terms of age, sex, and educational status. Before executing research and giving questionnaires, the necessary information has given to all students about the research subject, and all stated their satisfaction. Also, all of them became assured of being secretive about their information. The Connor-Davidson resilience scale assessed women, Cognitive emotion regulation questionnaire by Granfsky et al (2004), and Wells et al metacognition questionnaire (2004).

Connor-Davidson Resilience Scale (CD-RISC)

This scale designed by Connor and Davidson and consists of 25 items each rated on a 5-point scale (0–4), with higher scores reflecting greater resilience. All of which carry a 5-point range of responses, as follows: not true at all (0), rarely true (1), sometimes true (2), often true (3), and true nearly all of the time (4). The scale is rated based on how the subject has felt over the past month. The total score ranges from 0–100, with higher scores reflecting greater resilience. Connor and Davidson have reported Cronbach's-α coefficient of resilience scale 0.89, reliability coefficient 0.87.[15] In Iran, Mohammadi et al have reported the reliability of the scale of 0.89.[16] The reliability of this questionnaire has been evaluated by 0.72 by Cronbach's-α method in this research.

Cognitive Emotion Regulation Questionnaire

Garnefski et al designed this questionnaire in 2001.[17] It is one self-report tool, including 36 items with nine dimensions. The scoring method of this questionnaire based on 5 degrees Likert scale from 1 (Never) until 5 (Always). All 4 questions evaluate one factor, and the minimum and maximum scores for each sub-scale are 4 and 20, respectively, and the higher score indicates a person's better performance. The Cronbach's-α coefficient for the subscales of this questionnaire has been reported by Garnefski et al in the range of 0.71 to 0.81.[18] The reliability and validity of this questionnaire have been reported acceptable in the Iranian clinical population.[19]

Metacognition Questionnaire

The short form of Wells metacognition Questionnaire (MCQ-30) is one self-report with 30 items and 5 subscales, which was designed by Wells in 1997 and studied a person's beliefs about their thoughts.[20] Responses calculated based on a 4-point Likert scale (1 disagree to 4 agreed on a lot). Wells and Cartwright-Hatton[20] reported that the reliability of this range of Cronbach's alpha coefficients for the whole scale and subscales ranged from 0.76 to 0.93, and test-retest reliability was 0.75 and for the subscales of 0.59 to 0.87. Cronbach's α coefficient of the total scale has been stated 0.91 in the Iranian sample.[21]

Statistical Analysis

In the descriptive part, the mean and standard deviation has used. The Kolmogorov-Smirnov test was used to check the normality of data. Data analysis has gathered by using the multivariate variance analysis. All analyses performed with software SPSS version 22 software.

Results

A total of 120 married women (60 primiparous women and 60 multiparous women) investigated. The mean and standard deviation of age in the primiparous and multiparous women groups were 28.01 ± 4.28 and 28.89 ± 5.68 orderly. Also, based on educational status, 2 groups were included an eight-under diploma, 18 diplomas, 50 BA, and 44 MA.

The mean and standard deviation of resilience, cognitive emotion regulation, and metacognitive beliefs of primiparous and multiparous women have stated in Table 1.

As per Kolmogorov-Smirnov test results, data indicate normal distribution. According to the significance level, there is a difference among resilience, cognitive regulation of emotion, and metacognitive beliefs of primiparous and multiparous women ($P < 0.001$) (Table 2).

According to the results of Table 3, the difference in resilience between primiparous and multiparous women groups was statistically significant (F=15.7, $P < 0.001$). It indicates that multiparous women show more resilience than primiparous. Also, there are a significant difference between 2 groups among self-blame (F=14.49, $P < 0.001$), others blaming (F=11.42, $P < 0.001$), rumination (F=12.72, $P < 0.001$), catastrophizing (F=89.44, $P < 0.001$), putting into perspective (F=35.36, $P < 0.001$), positive refocusing (F=20.74, $P < 0.001$), positive reappraisal (F=39.07, $P < 0.007$), acceptance (F=19.19, $P < 0.001$) and refocus on planning (F=10.66, $P < 0.001$). It means that multiparous women had better performance in

Table 1. Descriptive Indicators of Study Variables

Variables		Group	Mean	SD
Resilience	Resilience	Multiparous	45.84	9.06
		Primiparous	41.71	5.77
Cognitive Emotion Regulation	Self-blame	Multiparous	12.47	2.41
		Primiparous	14.19	3.99
	Others blaming	Multiparous	11.65	3.12
		Primiparous	13.17	3.21
	Rumination	Multiparous	13.11	3.75
		Primiparous	15.04	4.12
	Catastrophizing	Multiparous	12.16	3.02
		Primiparous	15.94	2.69
	Putting into perspective	Multiparous	13.09	2.68
		Primiparous	10.66	2.93
	Positive refocusing	Multiparous	15.23	3.29
		Primiparous	13.06	3.65
	Positive reappraisal	Multiparous	15.04	8.02
		Primiparous	13.17	2.52
	Acceptance	Multiparous	14.85	4.18
		Primiparous	12.52	3.52
	Refocus on planning	Multiparous	14.31	3.19
		Primiparous	11.57	3.65
Metacognition	Positive beliefs about worry	Multiparous	51.81	17.08
		Primiparous	46.01	14.63
	Negative beliefs about the uncontrollability of thought	Multiparous	43.07	19.67
		Primiparous	32.59	13.34
	Cognitive confidence	Multiparous	27.96	9.83
		Primiparous	29.31	10.37
	Beliefs about the need to control thoughts	Multiparous	30.48	7.84
		Primiparous	29.22	7.32
	Cognitive self-consciousness	Multiparous	25.49	7.87
		Primiparous	30.49	9.99

Table 2. The Results of Lambda Wilks Test for Comparing Resiliency, Cognitive Emotion Regulation and Metacognitive Beliefs in Primiparous and Multiparous Women

Test	Value	F	df	df Error	*P* Value
Pillai's trace	0.6111	20.54	15	196	0.001
Wilks lambda	0.389	20.54	15	196	0.001
Hotelling trace	1.57	20.54	15	196	0.001
Roy's largest root	1.57	20.54	15	196	0.001

self-blame, others blaming, rumination, catastrophizing, putting into perspective, positive refocusing, positive reappraisal, acceptance, and refocus on planning than primiparous women.

As seen in Table 3, there are significant difference between primiparous and multiparous women among positive beliefs about worry (F=7.06, $P<0.001$), negative beliefs about uncontrollability of thought (F=20.67, $P<0.001$) and cognitive self-consciousness (F=16.40, $P<0.001$), while there was no significant difference between the 2 groups in cognitive confidence and beliefs about need to control thoughts ($P>0.05$). Therefore, multiparous women show firmer positive beliefs about worry and negative beliefs about the uncontrollability of thought than primiparous. Also, primiparous women have higher cognitive self-awareness than multiparous women.

Discussion

The aim of the present research is a comparison of resilience, cognitive emotion regulation, and metacognitive beliefs of primiparous women and multiparous women. The findings showed that there are differences in resilience, cognitive emotion regulation, and metacognitive beliefs between primiparous women and multiparous women. This result is consistent with the findings of several studies.[5,22-25] In explaining these results, we can say, during each woman's life, some steps have profound effects on her life. The pregnancy period is a critical stage with physiological and psychological changes. Despite the pleasure of being a mother, it sometimes comes with stress and extreme fears. Even first childbirth stress classified as severe stress at mental-social stress tables. Multiparous women are more resilience than primiparous women, due to previous experiences in childbirth and more information that they already have. They can solve their stress with positive strategies and also have more flexibility in dealing with problems. The people with higher resilience have a high positive performance in adverse conditions. Therefore, it is more resistant to various problems, and the quality of life will be higher in this situation.[3,26] The results showed that there is a difference between primiparous and multiparous women in the mean of cognitive, emotional regulation, multiparous women have positive refocusing, acceptance, refocus on planning, positive reappraisal, and higher putting into perspective than primiparous women. Also, primiparous women have more self-blame, others blaming, rumination, and catastrophizing than multiple women. In explaining this finding, it seems that when people feel that they do not have control over their lives and events, they show depression, stress and anxiety more often and this leads to a sense of disability and the lack of relief from problems and a solution that is somehow a passive person susceptible to depression. People with weak cognitive strategies such as rumination, catastrophizing, and blaming are more vulnerable to emotional problems than others, while those with desirable strategies such as positive refocusing, acceptance, and refocus on planning, they are less vulnerable.[27] Using of maladaptive strategies makes an individual vulnerable to anxiety instead of responding appropriately to stressful events, while adaptive strategies do not follow these outcomes. Managing self-emotions and others leads to the power of organizing and adapting the person in stimulating situations. Emotion management may increase person adjustment ability in stimulating situations. The person with improved emotion management can experience

Table 3. Comparison of the Resilience, Cognitive Emotion Regulation and Metacognitive Beliefs Between Primiparous and Multiparous Women

Changes Resources	Sum Squares	*df*	Mean Squares	F	*P* Value
Resilience	902.98	1	902.98	15.7	0.001
Error	12076.27	210	57.51		
Self-blame	158.54	1	158.54	14.49	0.001
Error	12076	210	57.51		
Others blaming	122.54	1	122.54	11.42	0.001
Error	2253.93	210	10.73		
Rumination	197.94	1	197.94	12.72	0.001
Error	32667.69	210	10.56		
Catastrophizing	758.03	1	758.03	89.44	0.001
Error	1779.91	210	8.48		
Putting into perspective	313.37	1	313.37	35.36	0.001
Error	1860.94	210	8.86		
Positive refocusing	250.12	1	250.12	20.74	0.001
Error	2532.18	210	12.06		
Positive reappraisal	263.96	1	263.96	39.03	0.007
Error	1420.17	210	6.76		
Acceptance	286.29	1	286.29	19.19	0.001
Error	3132.25	210	14.92		
Refocus on planning	399.09	1	399.09	10.66	0.001
Error	7858.85	210	37.42		
Positive beliefs about worry	1782.87	1	1782.87	7.06	0.001
Error	53021.14	210	252.48		
Negative beliefs about the uncontrollability of thought	5818.14	1	5818.14	20.67	0.001
Error	59102.44	210	281.44		
Cognitive confidence	96.09	1	96.09	0.94	0.33
	21442.67	210	102.11		
Beliefs about the need to control thoughts	83.06	1	83.06	1.45	0.23
	12068.81	210	57.47		
Cognitive self-consciousness	1329.98	1	1329.98	16.40	0.001
	17034.98	210	81.12		

emotions or prevents them from any external and internal pressure. The inability to regulate emotions make one's emotions more dominant and logical and the individual in different situations only by relying on the emotional atmosphere of the environment and without considering any logical solutions possible.[7] Based on findings, multiparous women show firmer positive beliefs about worry and negative beliefs about the uncontrollability of thought than primiparous. Also, primiparous women have higher cognitive self-awareness than multiparous women. This result is consistent with the finding of Delavar Gavam and Alizadeh Goradel research.[22] In explaining this hypothesis, it can point out that many mental and psychological disorders of pregnant women are related to women's unconscious of the natural changes in their bodies and mental due to the pregnancy. Primiparous women have a higher awareness due to their positive experiences in the first pregnancy. However, multiparous women will have worries, and negative beliefs lead to conflicts of life, having other children, and having other problems compared to primiparous women. Most people who have positive beliefs about worries believe that the concern helps to solve the problem and increases their motivation, and being concerned about this kind of person is considered as a positive personality trait.

Consequently, meta-cognitive beliefs make people feel less self-controlled and, as a result, have anxiety and depression.[28] On the other hand, meta-cognitive beliefs of uncontrollability and risk make people more skeptical about their abilities, which can be due to individual experiences in terms of life and various stages of life.[29] One of the limitations of this study was using a questionnaire to gather data, and it may result in creating an unconscious orientation for many respondents. Also, this study has executed in Rasht province. Therefore we are cautious about generalizing results to the other cities.

Conclusion

Finally, in conclusion, the results showed significant differences in primiparous and multiparous women in resiliency, cognitive emotion regulation, and meta-cognitive beliefs, which can take necessary training and active steps in their promotion.

Conflict of Interest Disclosures

The authors declare that they have no conflict of interests.

Ethical Statement

Before executing research and giving questionnaires, the necessary information has given to all students about the research subject, and all stated their satisfaction. Also, all of them became assured of being secretive about their information.

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