

# The Relationship between Infertility Stress and the Quality of the Marital Relationship of Infertile Women: The Mediating Role of Spiritual Experiences

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## Abstract

**Background and Objective:** Infertility is one of the most important life crises that lead to psychological problems, stressful experiences and reduced quality of marital relationship. So the aim of this study was to investigate the mediating role of spiritual experiences in the relationship between infertility stress and marital relationship quality of infertile women.

**Methods:** This was a descriptive-correlational study of structural equations type. From the statistical population of this study, which included all women referring to the Infertility Center of Birjand in 2020, a sample of 120 people was selected by convenience sampling method and they answered the infertility stress questionnaires of Newton et al, Underwood and Teresi spiritual experiences and the quality of the Rust et al.'s marital relationship. Structural modeling and partial least squares algorithm (PLS) were used for data analysis. All the ethical considerations were observed in the present study and the authors reported no conflict of interests.

**Results:** The results showed that the relationship between infertility stress and spiritual experiences and the relationship between spiritual experiences and the quality of marital relationship was inverse and significant, but the relationship between infertility stress and the quality of marital relationship was direct and significant ( $P < 0.01$ ). The results further showed that spiritual experiences have a mediating role in the relationship between infertility stress and the quality of marital life in infertile women ( $P = 0.01$ ).

**Conclusion:** Considering the role of spiritual experiences in the relationship between infertility stress and the quality of infertile women's marital relationship, it is essential for health system officials and managers to pay attention to the role of effective factors in increasing the quality of infertile women's marital relationship.



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## Summary

### Background and Objective

Infertility is one of the most common problems in the world (1) that causes anxiety and depression in infertile couples and, as a result, dissatisfaction with their marital life and quality of life (2).

Conflicts and clashes between couples and challenges related to pregnancy and various physical and psychological changes during pregnancy, including infertility stress, reduce the quality of their relationship (3-4). Research shows a direct relationship between infertility stress and marital adjustment in women (5-6). On the other hand, spiritual experiences can play a significant

role in the health of infertile couples with positive psychological consequences (7-12). In general, infertility is an event that causes crisis, stress, and psychological vulnerability and sometimes reduces couples' satisfaction and, consequently, reduces their quality of life (12); therefore, it is important to know the factors that help infertile couples to stay calm in these critical times. Identifying important and effective variables in this field can pave the way for infertile women, infertility specialists and counselors at the community level to take interventions to maintain and increase the quality of marital relationships. For that reason, the present study was conducted to show the mediating role of spiritual experiences in the relationship between infertility stress and the quality of the marital relationship of infertile women.

### Methods

**Compliance with ethical guidelines:** In this study, all related ethical principles including the confidentiality of the questionnaires, obtaining informed consent of the participants in the study, and leaving them free to withdraw from the study were observed.

The present study was a descriptive-correlational one and of structural equations type. The statistical population included all infertile women who referred to Royesh Infertility Center in Birjand in the spring of 2020. Out of the eligible individuals, 120 were selected by convenience sampling method and completed infertility stress questionnaire (Newton *et al.*), questionnaire of spiritual experiences (Underwood & Teresi), and quality of life questionnaire (Rust *et al.*). Structural modeling and partial least squares algorithm (PLS) were used to analyze the data.

### Results

The results of direct and indirect path coefficients of the research model showed that all direct path coefficients related to the relationship of infertility stress with negative spiritual experiences and with marital relationship quality were positive and significant ( $P < 0.01$ ) and the relationship between spiritual experiences and marital relationship quality was negative and significant ( $P < 0.01$ ). Also, the path coefficient of the indirect relationship between infertility stress and the quality of marital relationship was significant through the mediating variable of spiritual experiences ( $P < 0.01$ ); In general, the research model enjoyed a good fit.

### Conclusion

The results showed that the effect of infertility stress on the quality of marital relationship is positive and significant. The above finding is consistent with the results of previous studies (5-6). In explaining this finding, it can be stated that infertile women experience symptoms of crisis, depression, grief, lack of control and high levels of anxiety or guilt, and concern about the body and sexual dysfunction, and show more fragility in the face of stress (13), which leads to a lot of tension between themselves and their spouses; as a result, they receive less support and sympathy from their spouses (14).

Another finding showed that the effect of infertility stress on spiritual experiences is negative and significant, which is consistent with the results of previous studies (8-9). In explaining the obtained result, it can be stated that daily spiritual experiences cause adaptation and reduce psychological stress in infertile women, because spiritual experiences include concepts such as connection with divine power and a sense of peace with the help of God and a sense of closeness to God that causes a person to feel the presence of God during the day and at every moment of life so that she is more compatible with problems and able to resolve and handle the tensions and stresses of life (15).

The results showed that the effect of spiritual experiences on the quality of marital relationship is negative and significant this finding is consistent with the results of previous studies (10-12). In justifying the obtained result, it can be stated that people who feel purposeful and meaningful in life experience a positive quality of marital relations and report high marital cohesion (16). Spirituality makes these people feel less stressed and anxious in difficult situations and make the right decision and making them purposeful, full of satisfaction and happiness in marital life (17).

The results showed that spiritual experiences play a mediating role in the relationship between infertility stress and quality of marital relationship. It can be stated that spiritual experiences, as a personal experience in infertile women, cause helping others, love and satisfaction with life, and create a positive attitude and interpretation by giving hope and meaning to life and encouraging people to be patient with problems. Such an interpretation also reduces infertility stress and improves adaptive behaviors.

In general, the findings of this study introduce a defective chain and cycle of a set of (infertility stress) factors as the main harmful factors in

marital relationships (in infertility conditions) and explain that these factors not only reduce the quality of marital relationships but also have a negative effect on the fertility cycle and directly affect the possibility of fertility. Therefore, identifying and examining the influential psychological variables (spiritual experiences) affecting the quality of marital relationships in infertility conditions and providing an inverse skill model (the ability to eliminate annoying variables instead of reinforcement) are among the strengths of this study.

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### Ethical considerations

This research is obtained from the thesis of the first author of the article in the field of clinical psychology at Islamic Azad University, Ferdows Branch and has been approved by the ethics committee of Birjand University of Medical Sciences under the code IR.BUMS.REC.1399.039.

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This study was conducted at the personal expense of the first author.

### Conflict of interest

The authors declared no conflict of interest in this study.

### Authors' contribution

Writing the main text of the article: first author; Supervisor and scientific editing of the article: second author; and statistical consultant: third author.

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## علاقة القلق الناجم من عدم الخصوبة وتأثيره على الحياة الزوجية لدى النساء العواقب: دور التجربة الروحية الوسيط

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### معلومات المادة

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### الملخص

**خلفية البحث وأهدافه:** من أكبر مصادر القلق في حياة المرأة هو العقر وعدم الخصوبة. فقد يؤدي هذا القلق إلى مشاكل و اضطرابات نفسية حادة وقد ينتهي بالإنفصال و اختيار عيش الزوجية. فبالنظر إلى هذه القضية الهامة تسعى هذه الورقة البحثية إلى دراسة دور التجربة الروحية/اللاهوتية في السيطرة على الإضطرابات النفسية الناجمة عن العقر لدى النساء العواقب و تحسين الحياة الزوجية و العلاقة بين الزوجين.

**منهجية البحث:** تعتمد هذه الدراسة المنهجية الوصفية التضامنية. أما المجتمع الاحصائي فهي يشمل جميع النساء اللواتي زرن مركز عدم الخصوبة في مدينة بيرجند لعام ٢٠٢٠ م. عماد هذه الدراسة هو المعلومات التي جمعت من بين ١٢٠ امرأة شاركن في الإستبيان و أجبن على أسئلة إستبيان نيوتن و الزملاء حول عدم الخصوبة و دور التجربة الروحية عند أندروود و ترسي و تأثير العلاقة الزوجية الزوجية في السيطرة على القلق الناجم عن العقر. أما آلية تحليل المعطيات و المعلومات فهي منهجية النمجة البنوية و خوارزميات الحد الأدنى من المربعات الجزئية (PLS) التي أفرغت فيها المعلومات لتحليلها.

**المعطيات:** تقول النتائج أنّ العلاقة بين إضطراب العقر لدى النساء العواقب و التجربة الروحية و علاقة التجربة الروحية بنوعية العلاقة الزوجية هي علاقة ثنائية و علاقة تأثير و تأثر. أما العلاقة بين قلق عدم الإنجاب و بين الحياة الزوجية فهي علاقة مباشرة و ذات مغزى ( $P < 0.01$ ). كما أشارت النتائج إلى أنّ التجربة الروحية أثبتت نجاعتها في خفض مستوى القلق و الإضطراب لدى النساء العواقب و كان لها تأثير إيجابي في تحسين مستوى الحياة الزوجية و علاقة الزوجين ببعضهما البعض ( $P < 0.01$ ).

**الاستنتاج:** بالنظر إلى دور التجربة الروحية في العلاقة الزوجية بين إضطراب عدم الخصوبة لدى النساء العواقب و تأثيرها الإيجابي، تصبح الحاجة إلى الإهتمام بهذا الأمر من قبل الجهات المعنية و المسؤولة عن الصحة العامة حاجة ملحة و لا بد من تعزيز دور التجربة الروحية والإهتمام بالجانب الروحي والنفسي في تحسين العلاقة الزوجية. و هذا ما توصلت إليه هذه الورقة البحثية.

### الكلمات الرئيسية:

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## رابطه استرس ناباروری با کیفیت رابطه زناشویی زنان نابارور: نقش میانجی تجارب معنوی

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### اطلاعات مقاله

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### چکیده

سابقه و هدف: ناباروری یکی از مهم‌ترین بحران‌های دوران زندگی است که به مشکلات روانی، تجربیات استرس‌زا و کاهش کیفیت رابطه زناشویی منجر می‌شود. بنابراین، هدف پژوهش حاضر بررسی نقش میانجی تجارب معنوی در رابطه استرس ناباروری با کیفیت رابطه زناشویی زنان نابارور بود.

روش کار: این مطالعه توصیفی-همبستگی از نوع معادلات ساختاری است. جامعه آماری پژوهش تمامی زنان مراجعه‌کننده به مرکز ناباروری شهر بیرجند در سال ۱۳۹۹ بود که از میان آنان نمونه‌ای به تعداد ۱۲۰ نفر به روش نمونه‌گیری در دسترس انتخاب شدند و به پرسش‌نامه‌های استرس ناباروری نیوتن و همکاران، تجارب معنوی اندروود و ترسی و کیفیت رابطه زناشویی راست و همکاران پاسخ دادند. برای تحلیل داده‌ها از الگوسازی ساختاری و الگوریتم حداقل مربعات جزئی (PLS) استفاده شد. در این پژوهش همه موارد اخلاقی رعایت شده است و مؤلفان مقاله تضاد منافی گزارش نکرده‌اند.

یافته‌ها: بر اساس نتایج به دست آمده رابطه بین استرس ناباروری با تجارب معنوی و رابطه بین تجارب معنوی با کیفیت رابطه زناشویی معکوس و معنادار بود؛ اما رابطه بین استرس ناباروری با کیفیت رابطه زناشویی مستقیم و معنادار بود ( $P < 0/01$ ). همچنین نتایج نشان داد که تجارب معنوی نقش میانجی در رابطه بین استرس ناباروری با کیفیت رابطه زناشویی زنان نابارور داشت ( $P < 0/01$ ).

نتیجه‌گیری: با توجه به نقش تجارب معنوی در رابطه بین استرس ناباروری با کیفیت رابطه زناشویی زنان نابارور، توجه مسئولان و متصدیان نظام سلامت به نقش عوامل مؤثر در افزایش کیفیت رابطه زناشویی زنان نابارور از ضروریات این پژوهش است.

### واژگان کلیدی:

استرس ناباروری

تجارب معنوی

زنان نابارور

کیفیت رابطه زناشویی

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