

Examining the Relationship Between Maternal Mental Health During Pregnancy and Child Temperament: A Systematic Review

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### **Abstract:**

**Introduction**: Pregnancy is a sensitive period during which maternal mental health including stress, anxiety, and depression can significantly affect the emotional development, temperament, and psychological well-being of the child. This systematic review aims to determine the relationship between maternal mental health during pregnancy and child temperament.

**Methods**: This systematic review was conducted in 2025 through a comprehensive search of databases including PubMed, Web of Science and Google Scholar. Articles published between 2010 and August 2025 were considered. Keywords such as "Mental Health," "Pregnancy," "Mother-Child Relations," and "Emotional Adjustment," were combined using Boolean operators (AND, OR, NOT). Inclusion criteria encompassed human studies published in English with full-text availability. After a three-stage screening process (title, abstract, full-text), eight eligible articles were selected.

Results: The reviewed studies consistently show that maternal stress, anxiety, and depression during pregnancy are significantly associated with difficult temperament in infants aged 8 weeks to 6 months, as well as social-emotional developmental challenges during childhood. These infants exhibit increased negative affect, higher irritability, and impaired self-regulation. The psychological effects of maternal distress during pregnancy extend beyond infancy and persist into middle childhood (ages 7 to 11), characterized by elevated negative affect and decreased effortful control in children. These associations remain significant even after controlling for current maternal stress. Mediating mechanisms include the continuation of postpartum stress and adverse parenting styles (e.g., hostile-reactive behaviors), which facilitate the influence of prenatal stress on children's externalizing problems. In contrast, prenatal stress exerts a direct effect on internalizing problems. These findings underscore the critical importance of maternal mental health during pregnancy.

Conclusion: Given the pivotal role of maternal mental health in the intergenerational transmission of prenatal stress effects on children's emotional and behavioral regulation, it is recommended that effective screening and intervention programs be implemented for pregnant women. Such measures are essential to prevent detrimental long-term impacts on neurobiological pathways and the social-emotional development of the child.

Key words: Mental Health, Pregnancy, Mother-Child Relations, Emotional Adjustmen



### Sexual partner satisfaction after vaginal tightening surgery: A systematic review

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### **Abstract:**

**Background:** Vaginal tightening surgery, a procedure with increasing global prevalence, is supported by a growing body of evidence regarding its outcomes. A proposed benefit is the enhancement of sexual well-being. This study aimed to evaluate the impact of this procedure on sexual partner satisfaction.

**Method:** A systematic search of electronic databases was conducted for original articles published in English between January 2000 and April 2025. The investigation focused on studies evaluating partner satisfaction following various vaginal tightening procedures in healthy women. Following the removal of duplicates, 2579 records were identified through a title and abstract keyword search.

**Results:** Of the six articles meeting the inclusion criteria (total n=266), only two utilized standardized psychometric instruments—specifically the International Index of Erectile Function-5 (IIEF-5), the New Sexual Satisfaction Scale (NSSS), the Golombok Rust Inventory of Sexual Satisfaction (GRISS), and the Male Sexual Health Questionnaire Ejaculatory Dysfunction (MSHQ-EjD). The remaining studies relied predominantly on a single-item question to assess partner satisfaction. Notwithstanding the heterogeneity in assessment methodologies, all included studies reported a consistent finding of improved partner sexual satisfaction following surgical intervention.

**Conclusion:** Based on the findings of this systematic review, it is evident that partners' satisfaction after vaginal tightening surgery increased. Although several factors influence this result, which have been discussed.

**Key words:** Genital cosmetic surgery, vaginal tightening surgery, sexual partner, male, satisfaction



### Emotional intelligence and marital satisfaction in coupled nurses in North Iran

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#### **Abstract:**

**Background:** Marital satisfaction plays a crucial role in the longevity of a marriage. To achieve this, it is important to express positive emotions and establish effective relationships during marital interactions. The present study aimed to investigate the correlation between emotional intelligence and marital satisfaction among nurses.

**Method:** This descriptive correlational study consisted of all nurses working in North of Iran hospitals. The data collection process involved the use of three questionnaires: a demographic information questionnaire, the Bar-on Emotional Quotient Inventory, and the ENRICH Marital Satisfaction Scale. The collected data were then analyzed using SPSS 19, descriptive and analytical statistical methods such as the Mann-Whitney U, Kruskal-Wallis, Pearson tests, and stepwise regression.

**Results:** The study results revealed that intrapersonal aspect, general mood, adaptability, stress management, and overall emotional intelligence had moderate scores. However, between-group comparison indicated that the scores were relatively low. Sex was found to have a significant relationship only with the stress management (p<0.034), with females exhibiting higher mean scores in this domain.

Age was found to have a significant relationship with adaptability and intrapersonal aspect (p<0.024 and p<0.000, respectively). Additionally, the age at which individuals got married showed a significant relationship with general emotional intelligence (p<0.000), stress management (p<0.000), adaptability (p<0.000), interpersonal aspect (p<0.006), intrapersonal aspect (p<0.000), and marital satisfaction (p<0.000). Moreover, the spouse's age was significantly related to adaptability and intrapersonal aspect (p<0.02 and p<0.008, respectively). There was a significant correlation between employment status (hired, contractual, and contract recruiters), general emotional intelligence (p<0.003), stress management (p<0.001), adaptability (p<0.001), intrapersonal aspect (p<0.000), and marital satisfaction (p<0.005). Furthermore, it was found that only stress management and interpersonal aspect were predictors of marital satisfaction.

**Conclusion:** Given the significant positive relationship found between emotional intelligence and marital satisfaction among nurses, it is evident that emotional intelligence can play a crucial role in enhancing marital relationships. Therefore, counselors should focus on increasing couples' awareness of emotional intelligence to improve their marital satisfaction.

Keywords: Emotional intelligence, Marital satisfaction, Nurse

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Breaking the Silence, Building Power: Reducing Stigma and Promoting Women's Health

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### **Abstract:**

**Background:** Stigma surrounding women's health issues, particularly those related to reproductive and mental health, remains a significant barrier to accessing care and achieving well-being. This study explores the impact of stigma reduction initiatives on empowering women and enhancing their health outcomes. By addressing societal and cultural taboos, the research aims to highlight strategies that foster open dialogue and resilience among women.

**Method:** A mixed-methods approach was employed, combining qualitative interviews with 50 women from diverse backgrounds and quantitative surveys administered to 300 participants. The study focused on health issues such as menstruation, infertility, postpartum depression, and gender-based violence. Data were analyzed using thematic analysis for qualitative responses and statistical tools for survey results. Community-based interventions, including awareness campaigns and support groups, were implemented and evaluated over six months.

**Results:** The study revealed that stigma significantly impedes women's willingness to seek help, with 65% of survey respondents reporting fear of judgment as a primary barrier. However, participants in stigma reduction programs showed a 40% increase in health-seeking behaviors and a notable improvement in mental well-being. Qualitative data highlighted the transformative power of shared experiences and community support in breaking the silence around stigmatized issues.

**Conclusion:** Reducing stigma is crucial to empowering women and improving their health outcomes. Community-driven initiatives that encourage open dialogue and provide safe spaces for discussion are effective in combating stigma. Policymakers and health practitioners must prioritize stigma reduction as a core component of women's health programs to foster resilience and equity.

**Key words:** Women's Health, Stigma, Social Stigma, Women's Empowerment



The Unseen Price of Devotion: How Caregiving Burdens Mold the Mental Well-Being of Mothers of Chronically Ill Children (2015–2025)

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#### **Abstract:**

**Background:** Mothers of children with chronic illnesses often experience significant caregiver burden due to intensive medical, emotional, and social demands. This burden has been linked to adverse mental health outcomes, including depression, anxiety, stress, and reduced quality of life. Despite increasing recognition, a comprehensive synthesis of recent evidence is limited.

**Method:** A structured search of Google Scholar, PubMed, and related academic databases was conducted for the period 2015–2025 using combinations of terms including "caregiver burden," "mothers," "children with chronic illness," and "mental health." Studies were screened for relevance to maternal outcomes of depression, anxiety, stress, and quality of life. Eligible articles were extracted, compared, and synthesized narratively.

**Results:** Across multiple cross-sectional studies and reviews, caregiver burden was consistently associated with poorer maternal mental health. Samples primarily involved mothers (70-90% female) of children with chronic conditions, ranging from 30 to 416 participants per study, often in cross-sectional designs using validated scales. Key findings consistently demonstrated that higher caregiver burden is positively associated with increased depression (e.g., r=0.712-0.846, p<0.001), anxiety ( $\beta$ =0.32-0.43, p<0.01), and stress ( $\beta$ =0.33, p<0.01), while negatively impacting quality of life (e.g., negative correlations, p<0.05; lower WHOQOL scores). Psychosocial factors like low social support exacerbated these effects, and profiles of vulnerability showed elevated burden linked to poorer well-being. Scoping reviews from low- and middle-income countries highlighted similar patterns, with burden reducing quality of life through stress and lack of resources. Integrative reviews also mapped validated instruments (Zarit Burden Interview, PHQ-9, WHOQOL-BREF, SF-36), reinforcing methodological consistency.

**Conclusion:** The evidence from 2015–2025 highlights caregiver burden as a critical determinant of maternal mental health in the context of childhood chronic illness. Interventions to strengthen resilience, improve social support, and reduce care-related stressors are essential to mitigate negative mental health outcomes and enhance quality of life for mothers. Future research should focus on longitudinal designs and intervention trials to establish causal pathways and effective strategies..

**Key words:** Caregiver burden; Mothers; Chronic illness; Depression; Anxiety; Stress; Quality of life.



Daily Spirituality and Spiritual Health: A Study of Female Nursing Students

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#### **Abstract:**

**Background:** Nurses, in order to provide comprehensive and appropriate care, including spiritual care, to patients, must possess sufficient spiritual and ethical health. This study aimed to identify the relationship between daily spiritual experiences of nursing students and their spiritual health, as well as to investigate the role of demographic variables.

**Method:** This cross-sectional study was conducted on 401 nursing students from Tehran University of Medical Sciences in 2021. Data were collected using a demographic information questionnaire, the Daily Spiritual Experiences Scale (DSES), and the Spiritual Health Questionnaire. The data were analyzed using SPSS version 18 at a significance level of 0.05

**Results:** Among the participating students, 91.3% were pursuing a Bachelor's degree, and 61.1% were female. The mean and standard deviation of daily spiritual experiences among nursing students were  $67.15 \pm 16.33$ . A significant relationship was found between daily spiritual experiences and the spiritual health of students (P < 0.001). The findings also indicated a significant relationship between daily spiritual experiences and gender (P < 0.001), marital status (p = 0.041), place of residence (P < 0.001), adherence to religious rituals (P < 0.001), economic status (p = 0.037), cigarette consumption (P < 0.001), and alcohol consumption (P < 0.001).

Conclusion: Based on the study's findings regarding the role of demographic variables on daily spiritual experiences and spiritual health of nursing students, as well as the relationship between daily spiritual experiences and their spiritual health, it is recommended that spiritual health be considered a crucial factor in providing comprehensive spiritual care to patients. Given the close interactions between nurses and patients, providing patient-centered nursing care leads to resolving patients' problems and their attainment of physical, mental, and spiritual well-being, ultimately enhancing their quality of life.

Key words: Daily spiritual experiences 'Spiritual health 'Demographic factors 'Nursing students



### Social and Spiritual Health: Pillars of Psychological Resilience in Adolescent Girls

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### **Abstract:**

**Background:** Adolescence, particularly for girls, is marked by numerous psychological challenges, making resilience a crucial trait. Previous research has predominantly focused on individual factors of resilience, while the role of social and spiritual contexts has received less attention. This study aims to deeply explore the lived experiences of Iranian adolescent girls, examining how social and spiritual health influence their psychological resilience.

**Method:** This qualitative study employed an Interpretive Phenomenological Analysis (IPA) approach. Participants included 15 adolescent girls aged 15 to 18, selected through purposive sampling based on the principle of theoretical saturation. Data were collected via in-depth, semi-structured interviews. Interview questions focused on the girls' experiences with social health (relationships with family, friends, school, community), spiritual health (beliefs, values, meaning in life, connection to a higher power), and how these dimensions impacted their resilience. Transcribed data were analyzed using IPA stages: repeated reading, initial note-taking, transforming notes into themes, clustering themes, and writing an analytical narrative. Member checking and peer debriefing were used to ensure credibility and trustworthiness.

**Results:** Analysis of the interviews revealed three main themes: 1. Social Support Networks: A Refuge from Storms, which encompassed family and peer support, and a sense of belonging to the community and school. 2. Spirituality: An Inner Compass and Source of Peace, which included belief in a higher power, finding meaning in life, and adherence to ethical values. 3. Interaction of Social and Spiritual Health: Synergy for Resilience, indicating the mutual reinforcement of these two dimensions through participation in group spiritual activities and receiving spiritually-oriented social support. These findings demonstrate that psychological resilience in adolescent girls is a multifaceted phenomenon influenced by the complex interplay of social and spiritual factors.

Conclusion: This study emphasizes that psychological resilience in adolescent girls extends beyond individual characteristics and is profoundly influenced by their social and spiritual life contexts. Social support networks and spiritual dimensions serve as vital resources for fostering resilience, and their interaction has a synergistic effect. The findings of this research have significant implications for designing supportive and educational interventions. It is recommended that mental health promotion programs for adolescent girls, in addition to teaching individual skills, also focus on strengthening family and peer relationships, creating opportunities for social participation, and developing the spiritual dimensions of their lives to help them more effectively cope with challenges and achieve their full potential.

Key words: Girls 'Resilience 'Spiritual Health 'Social Health



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### Global Prevalence and Mental Health Outcomes of Intimate Partner Violence Among Women: A Systematic Review

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**Background:** Intimate partner violence (IPV) is one of the most pervasive forms of gender-based violence worldwide and a critical determinant of women's health. Beyond its physical consequences, IPV is strongly associated with adverse mental health outcomes, including depression, anxiety, post-traumatic stress disorder (PTSD), substance abuse, and suicidal ideation. Understanding the global prevalence of IPV and its psychological effects is essential for developing effective prevention and intervention strategies. This systematic review aimed to synthesize recent evidence on the prevalence of IPV and its impact on women's mental health across different regions.

**Method:** A systematic search of open-access peer-reviewed articles published between 2020 and 2025 was conducted in databases including PubMed, Scopus, Web of Science, and Google Scholar. Search terms included intimate partner violence, domestic violence prevalence, and mental health outcomes. Studies were eligible if they reported quantitative or qualitative findings on the prevalence of IPV and associated mental health conditions among women.

**Result:** Findings indicate that approximately one in three women worldwide experiences some form of IPV during her lifetime, with prevalence rates ranging from 20% in high-income countries to over 40% in low- and middle-income settings. Across studies, women exposed to IPV had significantly elevated risks of psychiatric morbidity: depression (2–3 times higher), anxiety (2 times higher), PTSD (2–4 times higher), and suicidal behaviors (up to 3 times higher). Despite the significant burden, many survivors lacked access to mental health services or formal support systems.

Conclusion: Intimate partner violence (IPV) is a global public health concern strongly associated with depression, anxiety, PTSD, suicidal ideation, and adverse physical health outcomes among women. Evidence from multiple contexts confirms IPV as a critical social determinant of women's health, with cumulative effects of different forms of violence leading to more severe consequences. Early screening, trauma-informed mental health services, and gender-sensitive preventive strategies are essential to mitigate its impact.

**Keywords**: Intimate partner violence, Psychiatric Outcomes, Women's Mental Health.

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### The effectiveness of a Health Belief Model-based educational intervention on menstrual health among girls in Iran

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### **Abstract:**

**Background:** Menstrual health is closely linked to both physical and psychological well-being in adolescent girls. This study aimed to assess the effectiveness of the Health Belief Model (HBM) in promoting menstrual health among female students in Fasa, Fars Province, Iran.

**Method:** A quasi-experimental study was conducted in 2019–2020 on 200 high school girls randomly assigned to intervention (n=100) and control (n=100) groups. The intervention group received six 50–55-minute sessions using lectures, group discussions, educational materials, and multimedia. Data were collected using a demographic questionnaire and an HBM-based scale administered before and three months after the intervention. Statistical analyses compared changes between groups.

**Results:** The mean age of participants was 13.4±0.68 years in the intervention group and 13.34±0.72 years in the control group. No significant baseline differences were observed. Three months post-intervention, the intervention group demonstrated significant improvements in knowledge, perceived susceptibility, severity, benefits, self-efficacy, cues to action, and performance (p<0.05), while perceived barriers showed no significant change.

**Conclusion:** Educational interventions based on HBM are effective in improving menstrual health behaviors among adolescent girls and may contribute to the prevention and reduction of premenstrual symptoms. Promoting menstrual health as a social and psychological priority can reduce stigma, empower girls, and enhance overall well-being.

Key words: Health Belief Model, Menstrual Health, Female Students, Education



The effect of cognitive-behavioral counseling on maternal-fetal attachment among pregnant women with unwanted pregnancy in Iran: A randomized clinical Trial

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#### **Abstract:**

**Background:** Unwanted pregnancy is an important public health concern that can have significant health, social, and economic effects on the mother, the baby and her family. The establishment and enhancement of maternal-fetal attachment (MFA) play a role in the promotion of emotional communication between the mother and the child in the future. This study aimed at investigating the effect of cognitive-behavioral counseling on maternal-fetal attachment among pregnant women with unwanted pregnancy.

**Method:** In this randomized clinical trial, 60 eligible pregnant women with unwanted pregnancy and gestational age of 22-28 weeks who had referred to health centers in Mashhad, a city in the northeast of Iran, were selected and they were through random block assignment divided into two groups of counseling with the cognitive-behavioral approach (n = 30) and the control group (n = 30). In addition to the routine pregnancy care, the cognitive-behavioral counseling group received four group counseling sessions on a weekly basis, while the control group only received the routine pregnancy care from healthcare providers. Maternal-fetal attachment before and after intervention in the two groups was assessed through Cranley's Maternal-Fetal Attachment Scale. Comparison of mean scores within and between the two groups was performed using SPSS 21 through independent and paired t-tests.

**Results**. At the end of the study and after the intervention, the mean scores of maternal-fetal attachment in the intervention and control groups were  $94.06 \pm 11.73$  and  $80.16 \pm 10.09$ , respectively, and the difference between the groups was significant. Although the difference between the mean scores of each group at the beginning and the end of the study was significant, this difference between the two groups was also noticeable ( $21.56 \pm 12.16$  vs  $7.40 \pm 12.39$ ) and statistically significant.

**Conclusion:** Cognitive-behavioral counseling can be effective in enhancing the maternal-fetal attachment in unwanted pregnancies; therefore, it is recommended to be integrated into pregnant women's healthcare programs.

**Key words:** Cognitive-behavioral, Counseling, Maternal-fetal, Attachment, Unwanted pregnancy



### Effect of sexual enrichment program on the sexual satisfaction of pregnant women in Iran: A randomized clinical trial

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### **Abstract:**

**Background:** To improve the sexual satisfaction of pregnant women, there needs to be a culturally appropriate sex education program. This study aimed at determining the effectiveness of a sexual enrichment program on the sexual satisfaction of pregnant women.

**Methods:** This single-blind randomized clinical trial was conducted on 61 pregnant women aged 18 to 35 years old with lowrisk pregnancies and gestational ages of 14 to 32 weeks, who had referred to three healthcare centers in Mashhad. The participants were randomly assigned to two groups of control (n = 31) and intervention (n = 30) based on a table of blocks of four. The intervention group, in addition to receiving routine pregnancy training, participated in six one-hour sessions of a sexual enrichment program held on a weekly basis, while the control group received only the routine pregnancy healthcare. Larson's sexual satisfaction questionnaire was used to assess the sexual satisfaction of pregnant women prior to the study and two weeks after the intervention. Comparison of mean scores between and within the two groups was performed using SPSS software (version 21) using independent and paired t-tests.

**Results:** After the intervention, there was a significant difference between the mean sexual satisfaction scores of the two groups (p = 0.02). Comparison of the differences between the mean sexual satisfaction scores of the intervention group before and after the intervention indicated a significant change (p = 0.009), while in case of the control group this change was not significant (p = 0.46).

**Conclusion:** A sexual enrichment program can be effective in improving the sexual satisfaction of pregnant mothers. Therefore, this program can be used as a model and a scientific framework with easy applicability by midwifery personnel in healthcare centers.

Keywords: Sexual satisfaction, Pregnant women, Sexual enrichment program



### Challenges of Mental Health, Fertility during Pregnancy and Postpartum, Risk Factors, and Interventions

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#### **Abstract:**

**Background:** Reproductive health is a concept encompassing physical health as well as psychological and social dimensions. The interaction between mental health and reproductive health significantly affects women. Challenges in maternal health can have negative impacts and adverse consequences on infant development, the mother-child bond, and family dynamics.

**Method:** This study is a systematic review that involved searching databases such as Google Scholar, Elmnet, SID, Magrian, PubMed, and Science Direct using keywords including reproductive health, mental health, infertility, interventions, and psychological challenges from 2000 to 2024. After reviewing and eliminating duplicates and irrelevant articles, 15 papers were selected based on the research objectives.

Results: Studies indicate that various risk factors contribute to the onset of mental health disorders during pregnancy and postpartum. Common challenges related to mental health and reproductive health include adolescence and active reproductive phases, premenstrual syndrome, pregnancy stress, psychological consequences of unintended pregnancies, miscarriages, and infertility treatments. Biological factors (such as hormonal fluctuations), psychological factors (chronic stress, history of mental disorders), and social-economic factors (social support, economic status, culture, and access to services) play essential roles in shaping these interactions. Recent findings emphasize the importance of mental health care in reproductive health services, including regular screening for mental disorders among women visiting fertility and women's clinics. Effective interventions include psychotherapies such as Cognitive Behavioral Therapy (CBT) and Interpersonal Therapy (IPT), counseling, and if necessary, pharmacotherapy considering pregnancy and breastfeeding considerations. Enhancing social support and reducing mental health issues during pregnancy have been identified as key preventive and supportive strategies.

**Conclusion:** Reproductive health is intertwined with mental health. Understanding both and identifying risk factors is essential for providing care, preventive interventions, and treatments aimed at raising awareness and integrating mental health services into reproductive health services. Attention to psychological needs at all stages of reproduction is crucial for improving women's overall health and enhancing community well-being.

**Key words:** Reproductive health '\* mental health '\* infertility '\* interventions, '\* psychological challenges



## Examining the impact of domestic violence on the mental health of women and girls: A review study.

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#### **Abstract**

**Background:** Domestic violence against women and girls is a widespread problem worldwide that has serious consequences for their mental health. Violence against women is a long-standing global problem, and today one in three women around the world faces this issue. This condition includes a wide range of aspects such as verbal, physical, and psychological ones, which may vary depending on the circumstances of each community.

**Method:** In this narrative review, a comprehensive search was conducted in reliable databases such as Scopus, PubMed, and Google Scholar using the keywords domestic violence, women, girls, and mental health, without restrictions on study type. Through this process, 11 relevant English articles published in recent years were identified. After a thorough review of the full texts, those articles that aligned with the objectives of the study were selected.

**Results:** Domestic violence leads to adverse consequences such as suicidal thoughts, depression, and memory disorders Although women may experience these negative psychological effects at different times and with varying degrees of severity. Moreover, this phenomenon is associated with reduced self-confidence and an inability to make decisions.

Conclusion: Domestic violence continues to be one of the major public health challenges worldwide. Addressing its psychological consequences requires a multidimensional approach that encompasses improving mental health services, providing legal support, and raising public awareness Sometimes women refrain from reporting such violence due to the social and cultural conditions in which they live, which requires continuous attention and follow-up. The current priority is screening women for abuse, adopting a gender-sensitive approach in healthcare services, and increasing community awareness.

**Keywords:** domestic violence, women, girls, mental health



### Ethical Challenges in the Management of Pregnancy in Drug-Addicted Mothers: A Systematic Review

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**Background:** Studies indicate an increasing prevalence of addiction in pregnant women, with estimates ranging from three to eight percent of pregnant women engaging in substance use .This article identifies factors that contribute to the vulnerability of pregnant mothers of drug-addicted mothers and discusses ethical issues in preventing and terminating pregnancy, managing labor and delivery, and treating addiction during pregnancy.

**Method:** This study is a systematic review that searched for relevant keywords in PubMed, Scopus, Web of Science, Embase, SID, Magiran databases between ''oand ''o. In addition, an ethical framework was developed that was based on professional virtues, the ethical principles of respect for autonomy, the ethical concept of the fetus as a patient, and assisted and surrogate decision-making.

**Results:** Assisted decision-making processes form key components of the ethical framework and professional responses to impaired autonomy. These processes, which include education, skill training in problem-solving strategies, and treatment of addiction and related conditions, help women regain their capacity to make prudent decisions based on their long-held values and beliefs. Social Work Intervention, family planning, and sexual health are integrated and coordinated to provide the necessary assessment, monitoring, and support for patients.

**Conclusion:** Implementation of these recommendations should reduce the vulnerability of drugaddicted mothers and protect them from unwanted pregnancies and adverse consequences of addiction during pregnancy.

Keyword(s): Assisted Decision-Making, Medical Ethics, Pregnancy, Drug-Addiction



Omega-3 Fatty Acids: A Promising Ally in Combating Postpartum Depression

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#### Abstract:

**Background:** Postpartum depression (PPD) affects 10-20% of mothers worldwide and represents a significant public health concern. Nutritional factors have been implicated in its etiology, particularly the depletion of omega-3 polyunsaturated fatty acids during pregnancy and lactation. Maternal docosahexaenoic acid (DHA) levels may decline by as much as 50% in late pregnancy, with incomplete recovery in the postpartum period. Both DHA and eicosapentaenoic acid (EPA) possess anti-inflammatory and neuroprotective properties, making them biologically plausible candidates for the prevention and treatment of PPD. This scoping review aimed to map existing evidence on omega-3 fatty acids and PPD, identify major findings across study designs, and highlight gaps for future research.

**Method:** A scoping review was conducted according to PRISMA-ScR guidelines. Searches of PubMed, Scopus, and Web of Science identified studies published between 2004 and August 2025. Eligible designs included randomized controlled trials (RCTs), cohort and case-control studies, and systematic reviews or meta-analyses assessing omega-3 intake, supplementation, or biomarkers in relation to PPD outcomes measured by validated diagnostic instruments. Non-human, prophylactic, and non-English studies were excluded. Data were extracted and synthesized narratively with attention to study design, population, interventions, and outcomes.

**Results:** Evidence from diverse study types was identified. Prospective cohorts, including Belgian and Danish populations, reported associations between low maternal DHA or unfavorable n-6/n-3 ratios during pregnancy and higher risk of PPD up to one year postpartum. Intervention studies showed mixed results: several RCTs demonstrated significant reductions in depressive symptoms with EPA-enriched supplementation, while DHA-based interventions appeared more preventive. Meta-analyses consistently indicated small-to-moderate antidepressant effects of omega-3s, particularly in postpartum rather than antenatal subgroups. Proposed mechanisms involved regulation of inflammatory responses, enhancement of neurotransmission, and neuronal membrane stabilization. Across trials, supplementation was well tolerated with minimal adverse effects.

Conclusion: Omega-3 fatty acids—particularly EPA-dominant formulations—show promise as adjunctive strategies for the prevention and management of PPD. Nevertheless, findings remain inconclusive due to methodological inconsistencies and limited representation of diverse populations. Future research should prioritize standardized, longitudinal RCTs in varied cultural contexts to clarify optimal dosing, differential effects of EPA versus DHA, and long-term maternal mental health outcomes **Key words:** Omega-3 fatty acids, postpartum depression, EPA, DHA, supplementation, perinatal mental health



### Association between Serum Oxytocin Levels and Depression in Reproductive-Aged Women: A Cross-Sectional Study

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### **Abstract:**

**Background:** Oxytocin, a neuropeptide implicated in social bonding and emotional regulation, has been investigated for its potential role in depressive disorders. However, evidence regarding the association between circulating oxytocin levels and depression remains inconclusive. This study aimed to examine the relationship between serum oxytocin concentrations and depressive symptoms in healthy, reproductive-aged women.

**Methods:** In this cross-sectional analysis, 84 non-pregnant, married women aged 19–49 years were assessed. Depressive symptoms were evaluated using the Beck Depression Inventory (BDI), and serum oxytocin levels were quantified via ELISA. Statistical analyses included Pearson correlation and independent t-tests to explore associations between oxytocin levels and depression scores.

**Results:** Participants had a mean age of  $36.1 \pm 6.9$  years, with an average serum oxytocin concentration of  $192.7 \pm 139.7$  pg/ml. The mean BDI score was  $12.4 \pm 11.2$ , indicating variable depressive symptomatology within the cohort. No significant correlation was observed between serum oxytocin levels and depression scores (r= 0.137, P= 0.215). Additionally, oxytocin concentrations did not differ significantly between women with and without clinically relevant depressive symptoms (P= 0.110).

**Conclusion:** This study found no significant association between serum oxytocin levels and depression among reproductive-aged women. These findings underscore the need for further research with larger samples and longitudinal designs to clarify the potential role of oxytocin in depressive disorders within women's health contexts.

**Key words:** Depression, Oxytocin; Women, Cross-sectional study



### Association between serum Oxytocin levels and sexual function in reproductive-aged women: A cross-sectional study

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### **Abstract:**

**Background:** Oxytocin, a hypothalamic neuropeptide, plays a pivotal role in human social bonding, emotional regulation, and sexual behavior. Its potential involvement in female sexual function has received increasing attention in recent years. While some studies suggest that higher oxytocin levels may enhance sexual arousal, desire, and satisfaction, findings in clinical and non-clinical populations remain inconsistent. Clarifying this relationship is essential for understanding the neuroendocrine underpinnings of female sexual dysfunction (FSD), which significantly impacts quality of life and overall well-being in women of reproductive age. To investigate the association between serum oxytocin levels and sexual function among healthy reproductive-aged women.

**Methods:** This cross-sectional study included 84 non-pregnant, married women aged 19–49 years. Data were collected using the Female Sexual Function Index (FSFI) to assess sexual function, and an ELISA-based assay was used to determine serum oxytocin levels. The independent t-test and Pearson correlation coefficient were applied to explore the relationship between oxytocin levels and FSFI scores, as well as differences between women with and without FSD.

**Results:** The mean age of participants was  $36.1\pm6.91$  years. The average serum oxytocin concentration was  $192.70\pm139.71$  pg/mL, and the mean FSFI total score was  $21.54\pm5.18$ . No significant correlation was found between serum oxytocin levels and overall FSFI score (r= 0.066, P= 0.548). Furthermore, oxytocin concentrations did not differ significantly between women classified with FSD and those without (P=0.155).

**Conclusion:** This study did not find a significant association between serum oxytocin levels and sexual function in reproductive-aged women. Given the complex biopsychosocial nature of female sexual dysfunction, future research should consider longitudinal and interventional designs, incorporating larger, more diverse populations and additional hormonal and psychosocial variables. A deeper understanding of oxytocin's role may eventually contribute to more targeted and effective approaches in the assessment and treatment of FSD within the framework of women's health.

**Key words:** Sexual Function, Oxytocin; Women, Cross-sectional study.



### The effect of intranasal oxytocin on sexual function in men and women: A systematic review

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#### **Abstract:**

**Background:** Intranasal oxytocin can be used as a promising moiety for the treatment of sexual disorders. This study was carried out to systematically review the effect of intranasal oxytocin on sexual function in men and women.

**Methods:** We systematically searched databases (e.g., Cochrane Central Register of Controlled Trials Library, MEDLINE, Web of Science, Scopus, ProQuest, Google Scholar and Persian databases). All types of published clinical trials comparing different doses of intranasal oxytocin sprays with placebo sprays were included in the study. The primary outcome was sexual function and secondary outcomes were endocrine and cardiovascular measures and also side effects.

**Results:** A total of six studies were ultimately eligible for inclusion in the study. Though intranasal oxytocin improves various parameters of sexual function in men and women, according to the sexual response cycle, these changes are not statistically meaningful compared to the control group. Only one study revealed a meaningful impact on orgasm parameters and after orgasm, especially in men. In all studies, intranasal oxytocin administration has significantly and transiently increased plasma concentrations of oxytocin with no meaningful effect on other endocrine hormones. A study showed that the heartbeat is increased transiently during the arousal and orgasm stages, and such increase is meaningfully higher in men than in women.

**Conclusion:** Intranasal oxytocin administration fails to meaningfully affect the classical parameters of sexual response, but it improves the orgasmic and post-orgasmic dimensions, especially in men. To evaluate the effects of intranasal oxytocin administrations, we need more long-term clinical trials.

Key words: Intranasal Oxytocin, Sexual function, Men, Women



### Artificial Intelligence and Machine Learning in Predicting Pregnancy Complications: A Systematic Umbrella Review of Global Applications

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#### Abstract:

**Background:** This umbrella review synthesizes systematic reviews to evaluate the applications, efficacy, and challenges of artificial intelligence (AI) and machine learning (ML) models—including deep learning (DL), support vector machines (SVM), and neural networks—in predicting pregnancy complications such as preterm birth, preeclampsia, and delivery mode, to improve maternal and fetal outcomes.

**Method:** This umbrella review systematically synthesized existing systematic reviews (2010–2025) from PubMed, Scopus, Web of Science, and Embase on AI/ML applications for predicting pregnancy complications. Using search terms including "artificial intelligence," "machine learning," and "pregnancy complications," we included peer-reviewed reviews on models predicting outcomes like preterm birth, preeclampsia, mode of delivery, and fetal anomalies. Conference abstracts and non-AI/ML studies were excluded. Data on algorithms, performance metrics, and clinical applicability were extracted.

**Results:** This analysis of 12 systematic reviews (200 primary studies) found AI/ML models demonstrated strong predictive performance (AUC range: 0.74–0.95) for complications, primarily preterm birth (67% of reviews) and preeclampsia (33%). prevalent algorithms included support vector machines, neural networks, and random forests, applied predominantly to EHRs and clinical features. A significant geographical bias was observed, with most studies conducted in high-income countries. Key reported challenges encompassed data quality, model interpretability, and ethical implementation barriers.

Conclusion: AI and ML models demonstrate high predictive accuracy for pregnancy complications like preterm birth, preeclampsia, and delivery mode. However, clinical adoption faces challenges including data limitations, algorithmic opacity, and training biases. Further research is needed to develop standardized datasets, improve model generalizability, and address ethical concerns. Ultimately, AI-based decision support systems could significantly enhance obstetric care and reduce global maternal-fetal morbidity.

**Key words:** Artificial intelligence\*; Machine learning\*; Pregnancy complications\*; Preterm birth\*; Preeclampsia\*; Mode of delivery\*; Predictive models\*; Maternal health\*



### **Exploring the Potential of Robotic Surgery in Cesarean Deliveries: A Comprehensive Umbrella Review of Efficacy, Benefits, and Challenges**

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### **Abstract:**

**Background:** Robotic surgery represents a transformative advancement in gynecology, particularly for cesarean deliveries. Systems such as the da Vinci Surgical System have enhanced the precision and outcomes of minimally invasive procedures. This umbrella review synthesizes evidence from systematic reviews to evaluate robotic-assisted cesarean sections against conventional methods, including laparoscopy and open surgery.

**Method:** We systematically reviewed systematic reviews (2010-2025) on robotic-assisted cesarean sections from PubMed, Scopus, and Web of Science. Search terms included "robotic surgery," "cesarean section," and "minimally invasive surgery." Included studies compared robotic and conventional approaches for cesarean complications and outcomes.

**Results:** Analysis of 10 systematic reviews revealed increasing robotic surgery adoption for complex cesarean cases (e.g., scar defects). Robotic approaches demonstrated superior outcomes to open surgery in 80% of studies, reducing operative time, blood loss, and hospitalization. Compared to laparoscopy, results were mixed. Advanced techniques (single-site, hybrid systems) showed improved fertility preservation and fewer complications. While associated with shorter recovery and higher satisfaction, rare complications like bladder perforation (2.9%) occurred. Most evidence originated from high-income countries, highlighting significant access disparities. Key challenges included high costs, extensive training requirements, limited long-term data, and a strong correlation between surgeon experience and operative efficiency.

**Conclusion:** Robotic-assisted cesarean sections demonstrate promising outcomes, particularly for complex cases like cesarean scar defects. While offering advantages such as reduced blood loss, shorter hospitalization, and fewer complications, further research is required to establish its long-term efficacy compared to laparoscopy. Addressing economic constraints and training barriers remains crucial for wider adoption, especially in resource-limited settings.

**Key words:** Robotic surgery\*, cesarean section\*, gynecology\*, robotic-assisted surgery\*, cesarean scar defect\*, minimally invasive surgery\*, patient outcomes\*, surgical training\*



Effect of a Nurse-Led Biopsychosocial Intervention on Mental Health and Psychosomatic Symptoms in Infertile Women: A Randomized Controlled Trial

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### **Abstract:**

**Background:** Infertility is one of the most significant factors threatening women's mental health and is often associated with psychosomatic disorders. The biopsychosocial approach, emphasizing physical, psychological, and social dimensions, is recognized as a comprehensive framework in nursing care and can play an important role in reducing psychological stress and psychosomatic symptoms in women. This study aimed to investigate the effect of a nurse-led biopsychosocial intervention on improving mental health and reducing psychosomatic symptoms in infertile women.

**Method:** This parallel randomized controlled trial was conducted in 2025 on 60 infertile women who visited the Infertility Treatment Center at Zahedan University of Medical Sciences. Eligible participants were randomly assigned to intervention (n=30) and control (n=30) groups using block randomization. The intervention consisted of eight 90-minute group sessions over four weeks, conducted by a trained nurse, and included stress and emotion management, relaxation and deepbreathing exercises, lifestyle and nutrition modification, communication and social skills training, and spiritual-psychological counseling. Data were analyzed using SPSS version 26. Independent t-tests were used for between-group comparisons, paired t-tests for within-group comparisons, and ANCOVA was applied to control for confounding variables. A p-value of <0.05 was considered statistically significant.

**Results:** There were no significant differences between the two groups in baseline mental health and psychosomatic symptoms (p>0.05). After the intervention, the intervention group showed a significant improvement in mental health scores and a marked reduction in psychosomatic symptoms (p<0.001), whereas no significant changes were observed in the control group.

**Conclusion:** A nurse-led biopsychosocial intervention can effectively improve mental health and reduce psychosomatic symptoms in infertile women. It is recommended that this approach be implemented in the care programs of infertility treatment centers in Sistan and Baluchestan province, particularly in Zahedan.

Key words: Infertility · Mental Health · Psychosomatic Disorders · Nursing



Effect of Online Interventions Based on Growth Mindset Theory on Enhancing Mental Health and Reducing Test Anxiety in Adolescent Girls: An Interventional Study

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### **Abstract:**

**Background:**Exams, are exposed to high levels of anxiety and psychological stress, which can affect their mental health and academic performance. Growth Mindset Theory emphasizes the belief in the ability to change and improve skills through effort and learning, and it can play an effective role in reducing anxiety and enhancing mental health among adolescents

Method: This parallel randomized clinical trial was conducted in 2025 (1404 in the Iranian calendar) on 60 adolescent girls aged 15–18 years from secondary schools in Zahedan. Participants were randomly assigned to an intervention group (n=30) and a control group (n=30). The intervention consisted of six 75-minute online sessions over three weeks delivered via an interactive educational website. The program included training on growth mindset beliefs, self-efficacy exercises, concentration and test anxiety management exercises, interactive activities, and multimedia content including videos, audio files, and PDF handouts. Participants had 24/7 access to the website and could interact with the research team via online chat for feedback and guidance. Data were collected using the Strengths and Difficulties Questionnaire (SDQ) and the Test Anxiety Inventory (TAI) before and one month after the intervention. Statistical analysis was performed using SPSS version 26, employing independent t-tests, paired t-tests, and ANCOVA, with a significance level of p<0.05. Results: At baseline, there were no significant differences between the groups in test anxiety and mental health scores (p>0.05). After the intervention, the intervention group showed a significant reduction in test anxiety and improvement in mental health indicators (p<0.001), whereas the control group showed no significant changes. These results indicate that online interventions based on Growth Mindset Theory can effectively enhance coping skills and positive beliefs about personal abilities, thereby reducing test anxiety in adolescent girls.

**Conclusion:** Online interventions based on Growth Mindset Theory are an effective strategy for reducing test anxiety and improving mental health in adolescent girls and can be used as a complementary approach in school-based educational and psychological programs.

Key words: Anxiety 'Mental Health 'Stress 'Adolescent



Effectiveness of a Group-Based Intervention Program Based on Self-Efficacy Theory in Reducing Occupational Stress and Enhancing Job Resilience among Female Nurses Working in Intensive Care Units: An Interventional Study

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### **Abstract:**

**Background:** Female nurses working in intensive care units (ICU and CCU) are exposed to high levels of occupational stress, which can negatively affect their mental health, quality of care, and job resilience. Self-Efficacy Theory (Bandura) emphasizes an individual's belief in their ability to manage challenging situations and can play a significant role in reducing stress and enhancing resilience among nurses.

Method: This parallel randomized clinical trial was conducted in 2025 on 60 female nurses working in the ICU and CCU of Imam Ali Hospital, Zahedan, Iran. Inclusion criteria included at least one year of work experience in critical care units, willingness to participate, general physical and mental health, and no concurrent psychological interventions or counseling. Exclusion criteria included severe physical or mental illness, transfer to another department during the study, and absence from more than two intervention sessions. Participants were randomly assigned to either the intervention group (n=30) or control group (n=30). The intervention program consisted of six 90-minute group sessions over three weeks, focusing on strengthening self-efficacy, teaching coping strategies, managing work-related stress, relaxation exercises, and group discussions of stressful work experiences. Data were collected using the Occupational Stress Questionnaire and Job Resilience Scale before and one month after the intervention. Statistical analysis was performed using SPSS version 26 with independent t-tests, paired t-tests, and ANCOVA, with a significance level set at p<0.05.

**Results:** At baseline, there were no significant differences between the groups in occupational stress and job resilience scores (p>0.05). After the intervention, the intervention group showed a significant reduction in occupational stress and an increase in job resilience (p<0.001), whereas the control group showed no significant changes. These results indicate that the group-based intervention program based on self-efficacy theory effectively enhanced coping skills and improved job resilience among nurses.

**Conclusion:** The group-based intervention program grounded in self-efficacy theory is an effective strategy for reducing occupational stress and enhancing job resilience among nurses working in critical care units. It can serve as a complementary strategy in hospital educational and support programs.

Key words: Self Efficacy · Occupational Stress · Female · Nurses



Effectiveness of an Integrated Educational Program Based on Social Cognitive Theory on Improving Lifestyle and Reducing Pregnancy-Related Anxiety in Pregnant Women Attending Urban Health Centers: A Randomized Controlled Trial

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### **Abstract:**

**Background:** Pregnant women experience physical, psychological, and social changes during pregnancy, which can impact their lifestyle and mental health. Pregnancy-related anxiety is associated with negative outcomes, including reduced quality of life, increased physical complications, and effects on fetal development. Social Cognitive Theory (Bandura) emphasizes observational learning, self-efficacy, and the interaction between individuals and their environment, providing a suitable framework for designing educational programs to improve lifestyle and reduce anxiety in pregnant women.

**Method:** This parallel randomized controlled trial was conducted in 2025 on 60 pregnant women attending urban health centers in Zahedan. Inclusion criteria were healthy singleton pregnancies of at least eight weeks, willingness to participate, literacy, and relative physical health. Exclusion criteria included severe chronic physical or mental illnesses, high-risk pregnancies, and missing more than two sessions. Participants' pregnancy-related anxiety levels and gestational age (first, second, or third trimester) were assessed, and 60 participants were then allocated into intervention (n=30) and control (n=30) groups using a multibranch block method to ensure balance between groups. The intervention consisted of six 90-minute integrated sessions over three weeks covering healthy lifestyle education, stress and anxiety management skills, relaxation and deep breathing exercises, self-efficacy training, and observational activities. Sessions were delivered face-to-face with multimedia content, including videos, booklets, and practical exercises. The control group received standard care provided by the health centers, and after data collection, they were offered access to the program.

**Results:** At baseline, there were no significant differences between groups in lifestyle scores or anxiety levels. Following the intervention, the intervention group showed significant improvement in lifestyle indicators and a reduction in pregnancy-related anxiety, while no significant changes were observed in the control group. These findings indicate that an integrated educational program based on Social Cognitive Theory can strengthen self-efficacy and promote healthy behaviors in pregnant women, leading to reduced anxiety.

**Conclusion:** The integrated educational program based on Social Cognitive Theory is an effective intervention for improving lifestyle and reducing pregnancy-related anxiety and can be implemented as a complementary strategy in urban health centers.

Key words: Pregnant Women 'Pregnancy 'Social Cognitive Theory 'Anxiety



# The Effectiveness of Group Interventions Based on Acceptance and Commitment Therapy (ACT) in Reducing Anxiety Disorders and Improving Quality of Life in Infertile Women: An Interventional Study

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#### **Abstract:**

**Background:** Infertile women face considerable psychological pressure and anxiety disorders that can significantly reduce their quality of life and lead to both physical and psychological consequences. Acceptance and Commitment Therapy (ACT) emphasizes psychological flexibility, acceptance of negative emotions, and commitment to personal values, and may help reduce anxiety and improve the quality of life among infertile women.

Method: This parallel interventional clinical trial was conducted in 2025 on 60 infertile women attending the Infertility Treatment Center of Zahedan University of Medical Sciences. Inclusion criteria were primary or secondary infertility, at least one year of unsuccessful attempts to conceive, literacy, and willingness to participate in the study. Exclusion criteria included severe chronic physical or mental disorders, concurrent psychiatric medication or counseling, and absence from more than two intervention sessions. Participants were allocated into intervention (n=30) and control (n=30) groups using a stratified block randomization method. The intervention consisted of eight 90-minute group sessions over four weeks, designed according to ACT principles. Data were collected using the Beck Anxiety Inventory (BAI) and the WHO Quality of Life-BREF (WHOQOL-BREF) questionnaire at baseline and one month after the intervention.

**Results:** At baseline, there were no significant differences in anxiety and quality of life scores between the two groups. After the intervention, the intervention group showed a significant reduction in anxiety disorders and improvement in quality of life scores (p<0.001), whereas the control group showed no significant changes. These findings suggest that ACT-based group interventions can enhance psychological flexibility and coping skills, leading to reduced anxiety and improved quality of life among infertile women.

Conclusion: Group-based Acceptance and Commitment Therapy is an effective approach for reducing anxiety disorders and improving the quality of life in infertile women, and it can be applied as a complementary program in infertility treatment centers. Future research is recommended to examine the long-term effects and generalizability of this intervention to other populations of infertile women. **Key words:** Infertility 'Quality of Life 'Women 'Anxiety



### Sexual desire discrepancy in couples: A scoping review

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#### **Abstract:**

**Background:** Sexual desire discrepancy (SDD) is a challenge in intimate relationships that leads to decreased marital satisfaction, increased conflict, and even relationship dissolution. SDD refers to differences between partners in sexual desire or preferences, which can lead to emotional distance and strain on the relationship. The purpose of this study is to provide a comprehensive understanding of the causes of SDD and to suggest strategies for balancing sexual relationships in couples.

**Method:** This study is a scoping review in which, to find the relevant studies, the researchers independently searched databases including PubMed, Cochrane Library, Scopus, and Google Scholar, targeting articles published between 1995 and 2024. The inclusion criteria were articles published in Persian or English in peer-reviewed scientific journals.

Results: The initial search identified 162 articles. After removing duplicates and screening titles and abstracts, 38 articles remained for full-text review, of which 14 articles (5 reviews, 2 randomized controlled trials, and 7 cross-sectional studies) met the inclusion criteria and were included in this review. The causes of sexual desire discrepancy between couples are classified into several groups, including biological factors (e.g., hormonal changes, medical conditions, medication side effects), psychological factors (e.g., stress, anxiety, depression, low self-esteem), couple communication issues (e.g., misunderstandings, unmet emotional needs), and cultural influences (e.g., traditional gender roles that prevent open discussions about sexual needs). Effective interventions for its treatment focus on the communication context and include psychological counseling (such as cognitive-behavioral therapy and emotion-focused therapy), sex education and communication reinforcement, behavioral

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strategies (such as planned intimacy and mindfulness practices), and medical or pharmacological treatments when necessary.

Conclusion: Sexual desire discrepancy is a complex, multifactorial issue that requires a nuanced, compassionate, and consultative approach. By addressing the biological, psychological, relational, and cultural aspects of their relationship, couples can better navigate this challenge and foster deeper intimacy and understanding. Therapists and health care providers play a key role in guiding couples toward effective individual and couple solutions. With appropriate interventions, SDD can be an opportunity for couples to grow in intimacy and connection rather than a source of conflict.

**Key words:** Sexual desire discrepancy, sexual desire, couple therapy, sexual counseling, sexual satisfaction.



### Effective Interventions on Postpartum Women's Sexual Function and Satisfaction: A narrative review

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#### **Abstract:**

**Background:** Postpartum women's sexual health is not only a vital aspect of quality of life, but also plays an important role in marital satisfaction and couple communication. Sexual disorders are common during this period and can cause significant psychological and marital consequences. Investigating interventions that can improve women's sexual function and satisfaction during this period is essential for designing effective care and counseling programs.

**Method:** This narrative review included 11 clinical trial and quasi-experimental studies in which to find the relevant studies, the researchers independently searched databases including PubMed, EMBASE, CINAHL, Cochrane Library, Scopus, and Google Scholar, and extracted the articles published between 2015 and 2025. The studies focused on educational and counseling interventions and examined their effects on postpartum women's sexual function and satisfaction.

**Results:** The included studies examined a variety of educational, counseling, and physical interventions on postpartum women's sexual function and satisfaction. These interventions can be classified into three main categories:

### 1. Physical/exercise interventions

Pelvic floor muscle training (PFMT): Performed individually or in groups, PFMT has been shown to improve pelvic floor muscle strength, sexual function, and quality of sexual life.

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### 2. Psychological/individual interventions

Cognitive-behavioral therapy (CBT): Provided individually and improved sexual function, increased sexual self-efficacy, and improved body image.

Sexual health education and educational packages: Provided in individual sessions and improved sexual function, quality of sex life, and reduced dyspareunia.

### 3. Couple and group interventions

Group and couple-centered counseling sessions (REDI and WPSHP models): Significantly improved marital satisfaction and sexual functioning.

Counseling based on the ex-PLISSIT model: which focused more on couples, led to improvements in sexual functioning and marital satisfaction.

Control groups that received routine care showed more limited changes.

**Conclusion:** Educational and counseling interventions, whether individual, couple-centered, cognitive-behavioral, or based on standardized models, can significantly improve postpartum women's sexual functioning and satisfaction. It is recommended that these interventions be systematically incorporated into postpartum care to improve the quality of sexual life and marital satisfaction.

**Key words:** Postpartum women, sexual function, sexual satisfaction, counseling, sexual health education, pelvic floor muscle exercises.



### Maternal Health on the Margins: Ensuring Access and Justice in Deprived Areas – A Systematic Review

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Of course. Here is the completed poster abstract based on the information from the file you provided.

### Abstract:

**Background**: Maternal mortality and morbidity are critical public health challenges, particularly in deprived areas where inequitable access to healthcare services leads to adverse outcomes, including preventable complications like unsafe abortion. This systematic review aims to examine the consequences of inadequate access to maternal healthcare in these settings, evaluate the broader socioeconomic and epidemiological impacts, and identify strategies to promote healthcare access justice to improve maternal well-being.

**Method**: This study is a systematic review of literature published between 2015 and 2025. A comprehensive search was conducted across PubMed, Scopus, Web of Science, and Google Scholar to identify relevant studies. The PRISMA methodology was used for study selection, resulting in the inclusion of 100 articles for the final synthesis. The review synthesizes findings on maternal health, healthcare access, poverty, and economic development.

**Results**: The review consistently found that inadequate healthcare access in deprived areas is linked to increased preventable maternal morbidity and mortality. A primary consequence is a higher incidence of unsafe abortions, which are associated with severe complications like sepsis, hemorrhage, and death. Economically, poor maternal health leads to a significant loss of human capital, reduced productivity, and an increased burden on healthcare systems. Promising interventions identified include community-based programs, social support networks, and equitable resource allocation strategies.

Conclusion: Limited access to maternal healthcare services directly increases maternal morbidity and mortality, with profound socioeconomic consequences that hinder economic development. Viewing maternal health as a critical investment in human capital is essential. Recommendations include implementing policies for universal access to care (including safe abortion) for policymakers, enhancing care quality and training for providers, and focusing on implementation science for researchers to evaluate scalable interventions in diverse deprived settings.

Keywords: Maternal Health 'Healthcare Access 'Social Justice 'Deprived Areas



### The predictive effect of health anxiety on the resilience of women undergone hematopoietic stem cell transplantation

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#### **Abstract:**

**Background:** Hematopoietic stem cell transplantation is a life-saving treatment that poses significant psychological and physical challenges for women. Health anxiety, often heightened during this process, may influence their ability to adapt and maintain resilience. This study aims to examine the predictive effect of health anxiety on the resilience of women who have undergone hematopoietic stem cell transplantation.

**Methods:** This is a cross-sectional study on 72 woman undergone hematopoietic stem cell transplantation referred to hematology and oncology clinic of Shiraz University of Medical Sciences. Connor-Davidson's Resilience Scale (CD-RISC), Health Anxiety Inventory was used for data collection. SPSS using regression linear analysis was used for analysis the data.

**Results:** The results of this study indicated that the mean score of health anxiety was 26.62 (SD=9.99) and it was in mild level. The mean score of resilience was 64.90 (SD=13.92), and it was in moderate level. Regression linear analysis showed that health anxiety predicted resilience of woman undergone hematopoietic stem cell transplantation ( $\beta$ =-0.57, t=-5.84, p<0.001, 95%CI=-1.06 to -0.52).

**Conclusion:** The findings revealed that women who underwent hematopoietic stem cell transplantation experienced mild levels of health anxiety and moderate levels of resilience. Health anxiety was found to be a significant negative predictor of resilience, indicating that higher health anxiety is associated with lower resilience. These results highlight the importance of psychological support interventions to reduce health anxiety and strengthen resilience in this patient population.

Keywords: Anxiety, Hematopoietic stem cell transplantation, Health, Resilience



### The interventions to address HPV vaccine acceptability among university students: A systematic review of the evidence

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#### **Abstract:**

**Background**: Human papillomavirus (HPV) ranks among the sexually transmitted diseases with the highest incidence, which can lead to infections and cancers of the genital tract, e.g., cervical cancer. Although several vaccines exist against the virus, vaccination coverage among students, as a vulnerable group, especially in developing countries, remains low. Therefore, the present study was conducted to investigate the interventions to address HPV vaccine acceptability among university students.

**Methods**: In this systematic review, a comprehensive systematic search was conducted using specified keywords such as "human papillomavirus" OR "HPV" AND "HPV vaccine" OR "vaccination acceptability" AND "Interventions" OR "education" OR "counseling" AND "students" in Google Scholar as a search engine and databases such as PubMed, Web of Science (ISI), SID, and Science Direct, which ultimately led to the extraction of 46 articles published between 2015 and 2024. Based on abstract screening and in accordance with the PRISMA 2020 flow chart, 18 studies were excluded in the stages of title and abstract screening. After full-text review, data from 28 studies were included in the final evaluation. The quality of the included studies was evaluated by the CASP Randomized Controlled Trial (RCT) checklist.

**Results:** The systematic review included 28 studies (13 RCTs, 15 quasi-experimental). Interventions to improve HPV vaccine uptake among students were categorized as educational (n=15), technology-based (n=6), or combined (n=7). Educational interventions significantly increased awareness and vaccination willingness in 11 of 15 studies. Technology-based approaches demonstrated efficacy in 3 of 6 studies. Combined interventions were the most effective, showing increased vaccination rates in 6 of the 7 studies that employed them. Based on quality assessment, 22 studies were of good quality and 6 were of fair quality.

Conclusion: This systematic review presents evidence to support that implementation of these interventions, especially along with improved vaccine access, can increase vaccine acceptance and eventually reduce the load of HPV-related diseases by increasing vaccination coverage. However, stronger studies with well-conducted mechanisms and culturally representative populations are needed to overcome the persistent difficulties in this area.

**Keywords:** HPV vaccine, acceptance, intervention, students



## The prevalence and factors influencing HPV vaccine acceptability among university students: A systematic review

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### **Abstract:**

**Background**: Human papillomavirus (HPV) is the most common sexually transmitted infection and can lead to various genital tract diseases and cancers, particularly cervical cancer. Since the HPV vaccine serves as a preventive measure, its social acceptance of the vaccine by the population, particularly among students as a vulnerable group is essential, and the level of acceptance depends on various factors. Therefore, the present study was conducted to investigate the prevalence and factors influencing HPV vaccine acceptability among university students.

**Methods**: In this systematic review, a comprehensive systematic search was conducted using specified keywords such as "human papillomavirus" OR "HPV" AND "HPV vaccine" OR "vaccination acceptability" AND "prevalence" AND "students" in Google Scholar as a search engine and databases such as PubMed, Web of Science (ISI), SID, and Science Direct, which ultimately led to the extraction of 38 articles published between 2015 and 2024. Based on abstract screening and in accordance with the PRISMA 2020 flow chart, 16 studies were excluded. After full-text review, data from 22 studies were included in the final evaluation. The quality of the included studies was evaluated by the CASP Cross-Sectional Studies and cohort Checklist.

**Results:** Among 22 included studies, 17 studies were cross sectional and 5 studies were cohort. Based on the results of the 13 studies, the prevalence of HPV vaccine acceptance among the students ranged from 15.7% to 95.8%, with higher rates in developed countries and lower rates in countries with limited access to healthcare services. The positive determinants of vaccine acceptance included gender related attitude (high acceptability among female gender) (n=9 studies), high knowledge of HPV and perceived vaccine benefits (n=14 studies), recommendations by health care providers and higher social support (n=7 studies), high awareness created by media and social media (n=6 studies), whereas negative determinants were misinformation from non-scientific sources (n=5 studies), safety concerns (n=10 studies), the, and socio-cultural barriers such as high cost and insurance coverage (n=8 studies), limited

cultural and religious norms (n=6 studies). The results of quality assessment showed that 18 studies had good quality and 4 studies had fair quality.

Conclusion: This systematic review demonstrates that the prevalence of HPV vaccine acceptance among students varies across studies and is influenced by multiple factors. However, there is need to enhance educational interventions and improve vaccine availability. Designed and implemented interventions can effectively increase vaccination rates and besides that, awareness campaigns can increase vaccination and reduce HPV-related diseases incidence.

**Keywords:** HPV vaccine, acceptance, prevalence, influencing factors, students



### Investigating the effectiveness of psychological interventions on health outcomes in pregnant women with HPV: Systematic Review

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#### **Abstract:**

**Background:** The prevalence of HPV in pregnant women is significantly higher than in non-pregnant women, and the virus is more prevalent in pregnant women living in less developed countries. Given that pregnancy is a state of mild immunosuppression, HPV manifestations in pregnant women may be more severe. Therefore, the aim of the present study was to investigate the effect of psychological interventions on the health of pregnant women with HIV.

**Method:** This systematic review was conducted by searching 5 databases, including Embase, PsycInfo, Web of Science, Scopus, and PubMed. All studies that reported the effect of psychological interventions on HPV-positive pregnant women were included in the study without any time restrictions. A specific syntax was designed for each database. The articles went through a four-step screening process; the duplicates, title, abstract, and full text were reviewed by two reviewers. Additionally, the quality of the articles was assessed using the CASP checklist. Keywords were extracted based on MeSH and Emtree terms that included "Pregnant women with HPV" and "Psychosocial Intervention" and Health.

**Results:** In the first phase, 686 studies were extracted. The articles were transferred to EndNote, and 298 duplicate articles were removed. Finally, no studies were found in this field. The results of this review are classified into three main categories: 1. Study gaps: A lack of research has been observed in this area, and it has been recommended that researchers pay more attention to this area and that more studies be conducted. Interventions for pregnant women: 2. most research and interventions have focused on the prevalence of the problem as well as pharmacological interventions, and this part of the studies is more prominent than other aspects. 3. Neglect of psychological aspects: Little attention has been paid to psychological dimensions, which indicates a lack of use of the biopsychosocial approach in treatment.

**Conclusion:** This systematic review revealed a significant gap in research on psychological interventions for HPV-positive pregnant women. These findings highlight the urgent need for more comprehensive research incorporating the bio psychosocial approach to address psychological aspects in this population. **Key words:** Pregnant women, Human Papillomavirus, Health



Effectiveness of a Psycho-Social Empowerment Program Based on Life Skills Training and Group Support on Self-Efficacy and Mental Health of Adolescent Pregnant Women in Marginalized Areas: An Interventional Study

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**Background**: Adolescent pregnant women living in marginalized areas face significant psychological, social, and economic challenges that can adversely affect their mental health and coping abilities. This study aimed to examine the effectiveness of a psycho-social empowerment program based on life skills training and group support in improving self-efficacy and mental health among this population.

Methods: This parallel randomized clinical trial was conducted in 2025 on 40 pregnant adolescent women residing in marginalized areas of Zabol. Inclusion criteria were age 15–19 years, confirmed pregnancy, willingness to participate in the program, and ability to attend group sessions. Exclusion criteria included severe psychiatric disorders and absence from more than two intervention sessions. Participants were recruited using convenience sampling from local health centers in Zabol and then assigned to the intervention (n=20) and control (n=20) groups using stratified randomization. The intervention consisted of six 90-minute sessions over three weeks, covering life skills training (problem-solving, emotion regulation, effective communication), relaxation and deep-breathing exercises, and peer support groups guided by a facilitator. The control group received routine care provided by the health centers. Data were collected using the General Self-Efficacy Scale (GSES) and the 28-item General Health Questionnaire (GHQ-28) at baseline and one month after the intervention.

**Results:** The mean self-efficacy scores at baseline were  $62.5 \pm 7.4$  in the intervention group and  $63.1 \pm 6.9$  in the control group, with no significant difference (p>0.05). Post-intervention, the intervention group showed a significant increase in self-efficacy ( $79.4 \pm 6.2$ ) compared to the control group ( $64.2 \pm 7.1$ ) (p<0.001). Similarly, mean mental health scores improved significantly in the intervention group ( $64.2 \pm 7.1$ ) (p<0.001).

Conclusion: The psycho-social empowerment program based on life skills training and group support effectively improved self-efficacy and mental health among adolescent pregnant women in marginalized areas. It is recommended that this program be implemented as a complementary intervention in local health centers, and future studies should examine its long-term effects and generalizability to other adolescent populations in marginalized settings.

**Keywords:** Adolescent pregnant women, Mental health, Self-efficacy, Empowerment program, Group support



Effectiveness of a Digital Intervention Program Based on the Stress and Coping Theory in Reducing Anxiety and Enhancing Mental Health of Women with Breast Cancer Undergoing Chemotherapy: A Randomized Clinical Trial

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# **Abstract:**

**Background:** Women with breast cancer undergoing chemotherapy are exposed to high levels of anxiety, psychological stress, and related mental health disorders, which may affect their quality of life and response to medical treatments. The Stress and Coping Theory (Lazarus & Folkman) emphasizes cognitive appraisal of stressful situations and the development of coping strategies for effective stress management.

**Method:** This parallel randomized clinical trial was conducted in 2025 on 60 women with breast cancer undergoing chemotherapy at the Cancer Center of Zahedan University of Medical Sciences. Participants were randomly assigned to intervention (n=30) and control (n=30) groups. The intervention consisted of eight 90-minute sessions over four weeks delivered via an interactive website. The program included stress management and emotional regulation training, relaxation and deep breathing exercises, problem-focused and emotion-focused coping skills training, psychoeducational content including instructional videos, audio files, PDF handouts, and weekly exercises and assignments to practice coping skills. Participants had 24/7 access to the website and could communicate with the research team through online chat for guidance and support. The control group received standard care, and after data collection, they were given access to the programStatistical analyses were performed using SPSS version 26, including independent t-test, paired t-test, and ANCOVA, with a significance level of p<0.05.

**Results:** At baseline, there were no significant differences between the groups in anxiety and mental health scores (p>0.05). After the intervention, the intervention group showed a significant reduction in anxiety and improvement in mental health indicators (p<0.001), whereas the control group showed no significant changes. These findings indicate that the digital intervention based on the Stress and Coping Theory can effectively enhance coping skills and reduce anxiety and psychological stress in women with breast cancer undergoing chemotherapy.

**Conclusion:** A digital intervention program based on the Stress and Coping Theory is an effective strategy for reducing anxiety and improving mental health in women with breast cancer undergoing chemotherapy. This program can be used as a complementary approach in psychological care to enhance patients' quality of life.

Key words: Anxiety · Mental Health · Stress · Psychological



The Effectiveness of Integrated Virtual Reality and Psychophysiological Exercises Based on Social Learning Theory on Anxiety Reduction and Mental Health Improvement in Infertile Women: An Innovative Study

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**Background and Aim:** Infertile women often experience high levels of anxiety and psychological stress, which can negatively affect quality of life and response to infertility treatments. Social Learning Theory (Bandura) emphasizes learning through observation, imitation, and social interaction, providing a suitable framework for designing combined interventions to reduce anxiety and enhance mental health.

Methods: This parallel clinical trial was conducted in 2025 on 60 infertile women attending the Infertility Treatment Center of Zahedan University of Medical Sciences. Inclusion criteria were primary or secondary infertility, at least one year of unsuccessful attempts at conception, age 20–40 years, literacy, and willingness to participate. Exclusion criteria included severe psychiatric disorders, concurrent psychological or pharmacological treatment, and absence from more than two intervention sessions. Participants were randomly allocated into intervention (n=30) and control (n=30) groups using simple randomization with a computer-generated list. The intervention consisted of eight 90-minute sessions over four weeks, which included guided exposure to relaxing virtual reality environments, psychophysical training (deep breathing, progressive muscle relaxation, and mindfulness exercises), and group sessions for sharing experiences with peer emotional support. The content was delivered through a combination of face-to-face interaction, virtual reality environments, and educational handouts. The control group received routine infertility care and had access to the intervention after data collection.

**Results:** The baseline mean quality of life score was  $64.3 \pm 7.2$  in the intervention group and  $63.7 \pm 7.5$  in the control group (p>0.05). Post-intervention, the intervention group showed a significant reduction in anxiety (BAI:  $17.5 \pm 4.7$ ) and a significant improvement in quality of life (WHOQOL-BREF:  $78.4 \pm 6.5$ ), while the control group showed no meaningful changes (BAI:  $27.2 \pm 5.8$ ; WHOQOL-BREF:  $64.1 \pm 7.3$ ) (p<0.001).

**Conclusion:** Integrated virtual reality and psychophysiological interventions grounded in Social Learning Theory are an effective strategy for reducing anxiety and improving mental health among infertile women and can be implemented as a complementary program in infertility treatment centers. Future studies should examine the long-term effects and generalizability of this program to other populations of infertile women.

**Keywords:**Infertile women, anxiety, mental health, virtual reality, psychophysiological exercises, Social Learning Theory.



The effectiveness of a mindfulness and acceptance program based on ACT theory in reducing decline and improving the quality of life of elderly women with Alzheimer's disease and long-term care

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**Background:**Elderly women with Alzheimer's disease living in long-term care centers are at high risk of anxiety, reduced quality of life, and psychological stress. Acceptance and Commitment Therapy (ACT) emphasizes acceptance of negative emotions, psychological flexibility, and commitment to personal values, which may reduce anxiety and improve quality of life.

Methods: This parallel clinical trial was conducted in 2025 on 60 elderly women with Alzheimer's disease residing in long-term care facilities in Mashhad. Inclusion criteria were age ≥65 years, mild to moderate Alzheimer's diagnosis, ability to participate in group sessions, and willingness to participate in the study. Exclusion criteria included severe psychiatric or physical illnesses and absence from more than two intervention sessions. Due to limited access to the facilities and differences in resident populations, participants were recruited using convenience sampling. To reduce bias, each facility was divided into two sections, and participants from each section were assigned to the intervention (n=30) or control (n=30) groups using matched allocation based on age and Alzheimer's severity. This approach ensured similar distribution of age and disease severity between groups and facilitated practical access and organization of group sessions.

**Results:** The mean anxiety and quality of life scores before the intervention in the intervention group were  $28.7 \pm 5.4$  and  $61.2 \pm 7.1$ , respectively, and in the control group were  $29.1 \pm 5.7$  and  $60.8 \pm 6.9$ , with no significant differences between groups (p>0.05). After the intervention, the intervention group showed a significant reduction in anxiety  $(17.5 \pm 4.9)$  and improvement in quality of life  $(75.3 \pm 6.8)$ , whereas changes in the control group were not significant (p<0.001).

Conclusion: Mindfulness- and acceptance-based ACT programs can effectively reduce anxiety and improve quality of life in elderly women with Alzheimer's disease residing in long-term care facilities. It is recommended that this program be implemented as a complementary intervention in the psychological care of older adults, and future studies should investigate its long-term effects and generalizability to other populations of elderly individuals with cognitive disorders.

Keywords: Elderly, Alzheimer's disease, Anxiety, Quality of life, Acceptance and Commitment Therapy



virtual reality interventions and psychophysical exercises based on social learning theory in reducing anxiety and promoting psychological well-being in women with cancer during chemotherapy

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**Background:**Women undergoing chemotherapy experience high anxiety, reduced psychological well-being, and stress. Social Learning Theory emphasizes observation, imitation, and the influence of the interaction between individual and environment in learning skills, providing a framework for innovative anxiety reduction interventions. This study aimed to evaluate the effectiveness of virtual reality and psychophysical exercises based on Social Learning Theory in reducing anxiety and enhancing psychological well-being among women with cancer.

Methods: This parallel clinical trial was conducted in 2025 on 60 women with cancer attending Imam Ali Hospital, Zahedan. Inclusion criteria were a confirmed cancer diagnosis, active chemotherapy, age 20–60 years, ability to use virtual reality (VR), and willingness to participate. Exclusion criteria included severe psychiatric disorders or absence from more than two intervention sessions. Participants were assigned to intervention (n=30) and control (n=30) groups using simple randomization. The intervention consisted of eight 90-minute sessions over four weeks, including guided exposure to relaxing VR environments, deep breathing exercises, progressive muscle relaxation, mindfulness exercises, and practical group-based training aimed at anxiety management and improving quality of life. The control group received routine care.

**Results**:The findings indicated that most participants were employed with moderate income levels. The mean age of women in the intervention and control groups was  $32.4 \pm 5.2$  and  $31.9 \pm 4.8$  years, respectively. Baseline anxiety scores did not differ significantly between the two groups (BAI mean $\pm$ SD:  $28.4 \pm 5.6$  vs.  $27.9 \pm 6.1$ , p>0.05). After the intervention, the intervention group showed a significant reduction in anxiety (BAI:  $17.2 \pm 4.8$ ) compared to the control group ( $27.4 \pm 5.9$ ) (p<0.001). Similarly, quality of life scores increased significantly in the intervention group (WHOQOL-BREF:  $78.1 \pm 6.9$ ) relative to the control group ( $63.2 \pm 7.5$ ) (p<0.001).

**Conclusion**: Virtual reality-based interventions combined with psychophysical exercises grounded in Social Learning Theory can be an effective strategy for reducing anxiety and enhancing psychological well-being in women with cancer undergoing chemotherapy. It is recommended that future studies examine the long-term effects of this intervention and its generalizability to other cancer.

<b>Key words:</b> virtual reality interven	tions, psychophysica	l exercises, soc	cial learning theory,	anxiety.



Effectiveness of an Integrated Psycho-Physical and Coping Skills Training Program Based on Self-Efficacy Theory in Reducing Stress and Enhancing Mental Health of Adolescent Mothers as Head of Household: An Interventional Study

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**Background**: Adolescent mothers serving as heads of households are exposed to high levels of psychological stress, familial and occupational pressures, and potential mental health challenges, which may negatively impact their own well-being and their children's quality of life. Self-efficacy theory (Bandura) emphasizes individuals' beliefs in their ability to manage challenging situations and provides a suitable framework for designing educational and supportive interventions to enhance coping skills and mental health.

Methods: This parallel clinical trial was conducted in 2025 on 60 adolescent mothers heading households who attended the Seyed Al-Shohada Comprehensive Health Center in Zahedan. Inclusion criteria were age 15–19 years, formal or practical custody of a child, literacy, and willingness to participate. Exclusion criteria included severe psychiatric disorders, concurrent psychological or pharmacological treatment, and absence from more than two intervention sessions. Participants were stratified based on age and number of children, and then assigned to the intervention (n=30) or control (n=30) groups using stratified random allocation. The intervention consisted of six 90-minute sessions over three weeks focusing on problem-focused and emotion-focused coping skills, relaxation and deep breathing exercises, self-efficacy training, and peer support groups guided by a facilitator. The control group received standard care provided by the center.

**Results:** The mean stress and mental health scores at baseline in the intervention group were  $29.3 \pm 6.4$  and  $61.7 \pm 7.2$ , respectively, and in the control group  $28.9 \pm 5.9$  and  $60.9 \pm 6.8$ , with no significant difference between the groups (p>0.05). After the intervention, the intervention group showed a significant reduction in stress ( $17.8 \pm 4.9$ ) and improvement in mental health scores ( $75.4 \pm 6.5$ ), while the control group showed no significant changes (stress:  $28.1 \pm 5.8$ ; mental health:  $61.2 \pm 6.9$ ) (p<0.001).

Conclusion: The integrated psycho-physical and coping skills training program is an effective intervention for reducing stress and enhancing mental health among adolescent mothers who are heads of households. This program can be implemented as a complementary strategy in urban supportive and health centers. Future studies should assess the long-term effects and generalizability of this intervention to other adolescent mother populations.

Keywords: Adolescent mothers, stress, mental health, self-efficacy theory, educational intervention



# A Systematic Review of Clinical Practice Guidelines Addressing Domestic Violence During Pregnancy

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### **Abstract:**

**Background:** Domestic violence is a public health concern and human rights violation affecting more than one-third of all pregnant women globally. Abused pregnant women need several interventions to reduce domestic violence and its negative consequences on the mother and child. The purpose of this study was to determine the quality, scope, and consistency of clinical guidelines for managing domestic violence during pregnancy.

**Method:** This systematic review was based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). Electronic databases, including Scopus, PubMed, Embase, Web of Science, UpToDate, Cochrane Library, Google Scholar, and Guideline repositories such as NICE, SIGN, GAC, NHMRC, NGC, New Zealand Guidelines Group, TRIP, AHRQ, G-I-N, and MD Consult, were searched using relevant keywords. Included studies were clinical guidelines containing recommendations about domestic violence in pregnancy and postpartum. Two reviewers used the AGREE II (Appraisal of Guidelines, Research, and Evaluation version 2) instrument to evaluate the quality of guidelines, and textual syntheses were used to appraise and compare the relevant recommendations. Out of 381 relevant published guidelines, 14 clinical guidelines were ultimately reviewed systematically.

**Results:** Seven countries had a clinical guideline for domestic violence during pregnancy. None of the reviewed guidelines was rated >75% across all domains of AGREE II, while the highest-rated domains were scope, purpose, and clarity. Four related categories were recognized from the synthesis of recommendations within the appropriate guidelines. These consisted of an introduction, domestic violence in pregnancy, the role of health care professionals, and the resources. Recommendations for privacy and confidentiality, screening, identification, support, and documentation were the most commonly reported, which all of the guidelines advised them, suggesting the importance of identification of violence in pregnancy and support for abused pregnant women. 93% of the reviewed

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guidelines had recommendations on communication, support and building trust, child protection, and professional education and training.

**Conclusion:** The study findings suggest that there are currently gaps in clinical guidelines in various areas, including patterns of violence, the cycle of violence, identifying risk factors for violence during pregnancy, providing medical care, implementing home visitation programs, promoting self-care and empowerment, preventing violence, offering follow-up support, and conducting community education programs. Therefore, it is crucial to develop or adapt clinical guidelines for abused pregnant women, emphasizing their needs to ensure their safety and well-being.

**Keywords:** Clinical guideline, domestic violence, pregnancy, systematic review



# The Impact of Machine Learning on Postpartum Depression

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# **Abstract:**

**Background:** Postpartum depression (PPD) is a common mental health condition affecting approximately 10–20% of new mothers. It poses significant risks to maternal and newborn health, impacting bonding, infant development, and overall family dynamics. Recent advancements in machine learning (ML) offer novel approaches for understanding and mitigating PPD.

**Method:** A comprehensive systematic review was conducted using prominent scientific databases, including PubMed, Scopus, Web of Science, Cochrane, Embase, and ProQuest. The initial search yielded a total of 379 articles. After a rigorous screening of titles and abstracts, 41 articles were selected for detailed review, focusing on the application of machine learning methodologies in the context of postpartum depression.

**Results:** This review highlights various machine learning (ML) techniques applied in the study of postpartum depression (PPD). Notably, natural language processing (NLP) has proven effective in analyzing patient-reported data to predict depressive symptoms. Additionally, supervised learning algorithms, such as logistic regression and random forests, have shown promise in identifying risk factors from electronic health records. However, challenges remain, including data quality, algorithm transparency, and clinical applicability.

**Conclusion:** Machine learning presents a transformative opportunity to improve the understanding and management of postpartum depression. By leveraging large datasets and advanced algorithms, machine learning can enhance early detection and enable personalized therapeutic strategies, potentially leading to better outcomes for both mothers and infants. Further research is necessary to address current limitations and validate these approaches in clinical settings.

Key words: Postpartum depression, machine learning, Women

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# Factors Providing Falls During Pregnancy: A Systematic Review with an Ergonomic and Universal Design Approach

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**Introduction**: Falls during pregnancy are one of the most important threats to maternal and fetal health. The risk of falls is greatly increased by physiological and biomechanical changes, such as shifting the center of gravity, increasing lumbar lordosis, and altering gait patterns, as well as by ergonomic and environmental risks in the house. However, there hasn't been as much rigorous research done on the connection between pregnant women's fall prevention and ergonomic house design.

**Methods**: This study was conducted as a systematic review and based on the PRISMA guidelines. Scopus, PubMed, and Google Scholar databases were searched 2010 up to August 2025 using a combination of keywords related to pregnancy, falls, home, and ergonomics. A total of 423 articles were identified, of which 336 titles and abstracts were reviewed after removing duplicates. However, 47 full texts were evaluated, and finally 8 articles met the inclusion criteria. Information including study characteristics, individual and environmental factors associated with falls, and suggested interventions were extracted.

**Results**: According to the findings, over 39% of falls happen on stairs, and 20–25% of pregnant women encounter at least one fall. higher instability was linked to biomechanical changes, particularly in the third trimester, such as larger steps and higher lordosis. On the other hand, substantial environmental hazards were identified as things like poorly designed stairs, dim lighting, slick flooring, and limited access to home appliances. Individual aggravating factors were also found to include underlying illnesses, overweight, older age, and multiple pregnancies. Safety barrier installation, improved lighting, non-slip flooring, ergonomic space design, pregnancy information, and balance exercises were among the suggested solutions.

**Conclusion**: Pregnancy-related falls are a complex issue influenced by both the arrangement of the home and modifications in the mother's biomechanics. Pregnant women's health can be improved and the risk of falls can be decreased with the help of ergonomic and home universal design, education, and supportive policies. More interventional research is required to assess the success of educational and environmental reforms.

**Keywords:** Pregnancy, Ergonomics, Universal design, Biomechanical factors, Injury prevention.



# Work-related Stresses on Pregnant Mothers: A Mixed-Method Ergonomic Approach

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**Introduction:** Pregnancy is a vital yet challenging period in women's lives, accompanied by profound physical, psychological, and social changes. Women become particularly vulnerable to stressors that may influence maternal mental health and pregnancy outcomes. Both workplace and living environments play a critical role in shaping these experiences. However, few studies have comprehensively examined these factors within the cultural and social context. This study was designed to identify key stressors among pregnant women, both employed and non-employed, in metropolitan and non-metropolitan settings, to provide insights for supportive and ergonomic interventions.

**Methods:** This research applied a mixed-methods design. In the quantitative phase, the JCQ and the PSS-10 were administered among pregnant women aged 21-38 years of employed (n=24), non-employed (n=18) from metropolitan and non-metropolitan areas. In the qualitative phase, semi-structured interviews were conducted to capture in-depth experiences of daily stressors. Quantitative data were analyzed using descriptive and comparative statistics, while qualitative data were examined through thematic analysis. Findings from both phases were integrated to provide a holistic understanding of stressors and their cultural—social contexts.

**Results:** The results demonstrated that stress in both professional and personal life affects pregnant women. Four major themes emerged from the qualitative interviews: social-cultural pressures (score=56.6), family stressors (score=60.3), individual concerns (score=60.8), and work-related stressors (score=63.3). Quantitative findings supported these concepts. Particularly for working women in urban areas, PSS-10 scores showed moderate to high felt stress. The results of JCQ showed that social support varied, especially when coworkers or supervisors were less supportive, high job demands, and job control was low.

Conclusion: A complex interplay of professional, family, personal, and sociocultural factors leads to stress during pregnancy. The greatest strain was observed by employed women, particularly those living in cities, who combined social and personal responsibilities with work-related demands. Combining qualitative and quantitative data emphasizes how critical it is to address structural elements of employment, such lowering pressures and improving workplace control, as well as bolstering support from family and the community. Throughout pregnancy, customized ergonomic and psychosocial interventions are crucial for lowering stress and enhancing maternal health.



# Effectiveness of Anxiety Management Programs and Physical Exercise in Women with Threatened Preterm Birth: A Systematic Review of Clinical Trials

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**Background:**Threatened preterm birth (TPB) is a major obstetric complication associated with increased risks of neonatal morbidity, maternal anxiety, and long-term neurodevelopmental impairments. Psychological distress exacerbates physiological stress responses, potentially influencing uterine activity and pregnancy outcomes. Strategies integrating anxiety management with structured physical exercise may offer dual benefits, yet the evidence requires systematic synthesis. To systematically review evidence from randomized controlled trials (RCTs) on the effectiveness of anxiety management programs combined with physical exercise interventions in women diagnosed with TPB.

**Methods:** Following PRISMA 2020 guidelines, we systematically searched PubMed, Scopus, Web of Science, CINAHL, and Cochrane Central (January 2020–July 2025) using MeSH and for "threatened preterm birth," "anxiety management," and "physical exercise." Eligible studies were randomized controlled trials involving structured anxiety management (e.g., cognitive-behavioral therapy, mindfulness, relaxation) combined with structured physical activity for pregnant women with threatened preterm birth. Non-RCTs, case reports, narrative reviews, and studies without full text were excluded. Independent dual-reviewer screening, data extraction, and quality assessment (Cochrane RoB 2) were conducted. Data were narratively synthesized and tabulated by intervention and outcome type.

**Results:** Twelve high-quality RCTs (n = 1,248; 2020–2025, Asia–Europe–Latin America) tested structured anxiety management (CBT, mindfulness, relaxation) plus moderate physical exercise (prenatal yoga, walking, pelvic floor training) for 4–8 weeks. Maternal anxiety decreased significantly beyond the minimal clinically important difference; salivary cortisol fell by 18%. Preterm birth risk dropped 28%, NICU admissions 21%, and mean birth weight rose by 142 g, with no adverse effects. Benefits were greatest in multiparous women and with in-person delivery; adherence exceeded 85% in nine trials, and integrated care outperformed single-component interventions in retention.

**Conclusion:** Evidence from recent RCTs supports that integrating targeted anxiety management with tailored physical exercise is both safe and effective for women with TPB, improving maternal mental health and reducing preterm birth risk. Adoption of such multidisciplinary interventions within antenatal care could enhance perinatal outcomes. Future research should standardize intervention protocols and assess cost-effectiveness in varied healthcare settings.

**Keywords:** threatened preterm birth; anxiety management; physical exercise; cognitive behavioral therapy.



# Analysis of Psychophysical Care Models and Programs in Women with Systemic Lupus Erythematosus: Systematic Review

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**Background:**Systemic lupus erythematosus (SLE) is a chronic autoimmune disease that predominantly affects women of reproductive age, causing multisystem involvement and significant psychological distress such as anxiety, depression, fatigue, and impaired quality of life. Integrated psychophysical care combining physical rehabilitation with structured psychological interventions offers a promising strategy to address these dual challenges, but the evidence in women remains scattered. This systematic review aimed to synthesize and evaluate studies on such care models and programs in women with SLE, examining their design, delivery, and impact on physical, psychological, and quality-of-life outcomes.

**Methods**:Following PRISMA 2020 guidelines, we conducted a systematic search of PubMed, Scopus, Web of Science, CINAHL, and Cochrane Central for English-language studies published between January 2000 and August 2025. Eligible studies included experimental and quasi-experimental designs evaluating combined physical and psychological interventions in women diagnosed with SLE. Two reviewers independently screened titles/abstracts, assessed full texts, extracted data, and appraised methodological quality using the Cochrane RoB 2 tool.

**Results**: From 1,274 screened records, 16 studies met inclusion criteria (n = 1,042 women; mean age range:27–44 years) across Asia, Europe, Africa, and the Americas. Intervention models included cognitive behavioral therapy, mindfulness-based stress reduction, peer-mentoring, physiotherapy, yoga, and combined aerobic/resistance training. Program durations ranged from 6 weeks to 12 months, with most delivered in multidisciplinary outpatient settings. Across studies, integrated care improved fatigue scores by 18–35%, reduced depression and anxiety levels by 20–40%, enhanced 6-minute walk distance by 8–15%, and yielded mean increases of 5–12 points in SF-36 physical and mental component summaries. Several trials reported reductions in SLEDAI disease-activity scores (mean 1–3 points) and improved medication adherence (>80% adherence rates sustained in 10/16 studies). Adverse events were rare and minor (e.g., transient musculoskeletal discomfort). Notably, culturally adapted peer-support interventions in African-American and South-African cohorts demonstrated high

acceptability and cost-effectiveness, while mind-body programs in Asian cohorts yielded significant autonomic balance improvements.

**Conclusion**: Psychophysical care models represent a feasible, safe, and effective adjunct in the management of women with SLE, improving both physical function and psychological well-being while potentially reducing disease activity. The heterogeneity of intervention designs underscores the need for standardized protocols and long-term evaluations. Embedding culturally tailored, multidisciplinary programs into rheumatology services may enhance patient outcomes and healthcare value.

**Keywords**:Systemic lupus erythematosus; psychophysical care; integrated care; women's health; cognitive behavioral therapy; physiotherapy; quality of life.



# The Gender Gap in the Burden of Mental Disorders: A Global Analysis of Prevalence and DALYs Across Socio-Demographic Contexts

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# **Abstract:**

**Background**: Gender is a significant factor in health equity, with leading differences in the prevalence and burden of disease between males and females deriving from biological, societal, and economic factors. This study aims to quantify the gender gap in the burden of mental disorders, focusing on prevalence and Disability-Adjusted Life Years (DALYs) across various socio-demographic regions, Iran, and on a global scale.

Methods: In this descriptive study, we calculated the gender gap by deducting the male rate from the female rate for both DALYs and prevalence. We retrieved epidemiological data for 11 mental disorder categories for males and females across five geographical locations, including Global, Iran, and three regions based on the Socio-Demographic Index (SDI) (Low, Middle, and High). The data was sourced from the Global Burden of Disease (GBD) database for the year 2021.

Results: Globally, females experienced a higher burden of DALYs and prevalence for Anxiety disorders, Bipolar disorder, Depressive disorders, Eating disorders, Mental disorders, and Idiopathic developmental intellectual disability (except in Iran and in Low and high-SDI regions). Conversely, the DALYs and prevalence burdens for Attention-deficit/hyperactivity disorder, Autism spectrum disorders, Conduct disorder, Other mental disorders, and Schizophrenia were greater in males globally. Iran had the greatest gender gap, with a higher burden on females for Anxiety disorders, Depressive disorders, and general Mental disorders in comparison with all other locations. Furthermore, in Iran, the female gender gap for Bipolar disorder and Eating disorders was greater than the global average rate for both DALYs and prevalence.

Conclusion: A significant gender gap exists in the burden of mental disorders, with women being more significantly affected by several common mental disorders on a global scale. Therefore, it is crucial for health systems to acknowledge the existing gender gap in mental disorders when developing and implementing health policies to improve mental health status for women. Addressing female-specific health needs through targeted programs and infrastructure can reduce inequity in access to health services, improve service quality, and decrease the overall global burden of mental disorders. Key words: Mental Health, Gender Gap, Health Inequity, Burden of Disease, DALYs, Prevalence, Socio-Demographic Index (SDI), Global Burden of Disease (GBD).



Application of Health Education Intervention models to Prevent Breast Cancer: A Systematic Review and Meta-Analysis

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# **Abstract:**

**Background:** Self-examination behaviors and screening are essential to control breast cancer. Studies have demonstrated that interventions based on health education models and theories can improve self-examination and self-management behaviors patients with breast cancer. However, there is no consensus on which education theory and models could be more efficient to improve healthy behaviors for preventing breast cancer. In this review, we aim to evaluate the effectiveness of health education and promotion theories and models on improving self-examination and self-management behaviors to prevent breast cancer.

**Method:** Four databases (PubMed, Scopus, Pro-Quest, and Science Direct) were searched using various keywords regarding health education and promotion theories and models. Researches were published in the English languages up to February 2020 were screened. Two independent reviewers examined the quality and eligibility of included study. Data were obtained directly from women. All quantitative databases included for the meta-analysis if they are directly relevant to health education theories/models, and only interventions targeted at the women population were used in the meta-analysis. In this study, the effect size was estimated based on the standardized mean difference (SMD) for interventional studies. We used both fixed-effect and random-effect models of effect sizes to examining the homogeneity and heterogeneity of the effect size factors, respectively. Th I-square (I²) statistic was also tested to measure the percentage of heterogeneity among studies.

**Results:** We included 14 studies the systematic review and pooled 7 in a meta-analysis. The meta-analyses and systematic review showed that interventions based on health education models or theory increase women's engagement and knowledge in self-examination skills and self-management behaviors to prevent breast cancer. Health belief Model was the most common model used for educational intervention to improve preventive health behavior in women with breast cancer.

**Conclusion:** Our finding highlights the beneficial impact of health education intervention models on motivating women to adopt self-examination and self-management behaviors to prevent breast cancer mortality and morbidity.

**Key words:** Breast Cancer, self-examination behaviors, health education theories, women health



Investigating mental health literacy and health-promoting behaviors in patients with multiple sclerosis

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# **Abstract:**

**Background:** Multiple sclerosis (MS) is a chronic disease that leads to both physical limitations and neuropsychological disorders. This study aimed to determine the relationship between mental health literacy (MHL) and health promoting behaviors (HPB) in patients referred to the comprehensive multiple sclerosis center of Mashhad city, in 2022.

**Method:** This cross-sectional study was performed on 230 patients referred to the comprehensive multiple sclerosis center of Mashhad city, in 2022. The sampling method was simply random and participants were easily selected. The data instrument was self-report questionnaires including demographic information, the mental health literacy questionnaire (MHLQ), and Walker's Health-Promoting Lifestyle Profile II (HPLP II). The data were analyzed using SPSS version 22 software.

**Results:** The results showed there was a significant correlation was found between the MHL in multiple sclerosis patients and HPB (r=0.690, P<0.001). Also, other dimensions of HPB had a positive and significant relationship with MHL.

**Conclusion:** The existence of a statistical relationship between MHL and HPB in people with multiple sclerosis emphasizes the importance of assessing MHL and increasing it in order to improve HPB.

**Key words:** Mental health literacy, health promoting behaviors, Multiple sclerosis



The effect of trained fathers' participation in the delivery room on maternal attachment to the newborn and attitudes toward childbearing in primiparous women: (a quasi-experimental study)

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### **Abstract**

**Background:** Maternal attachment to the newborn is a predictive factor for maternal attitudes and behaviors after childbirth. This study was designed to determine the effect of fathers' participation in the delivery room on maternal attachment to the newborn and attitudes toward childbearing in primiparous women.

**Method:** This quasi-experimental study was conducted in 2024 with the participation of 60 primiparous women, who had referred to Ganji Hospital in Borazjan, Iran. Participants were randomly assigned into two groups (intervention and control) using six-block randomization. In the intervention group, trained fathers were present alongside the mothers during labor and delivery. Before the intervention and at discharge, both groups completed the Attitudes toward Fertility and Childbearing Scale by Soderberg. Maternal attachment to the newborn was assessed using the Avant Maternal Attachment Scale during the first breastfeeding session and recorded by the researcher. Data were analyzed using t-tests, ANCOVA, and Pearson correlation with SPSS 25 & P<0.05.

**Results:** Before the intervention, there was no significant difference in the mean score of attitudes toward childbearing between the two groups (P=0.24). After the intervention, the mean scores of attitudes toward childbearing and its subscales, as well as maternal attachment to the newborn, were significantly higher in the intervention group compared to the control group (P<0.001). Furthermore, a significant positive correlation was found between maternal attachment and attitudes toward childbearing (P<0.001).

**Conclusion:** Enhancing the childbirth experience through the presence of trained fathers plays a significant role in strengthening maternal attachment to the newborn and improving attitudes toward childbearing.

**Keywords:** Father's participation, delivery room, maternal attachment, attitudes, childbearing



The relationship between attitude, knowledge, and practice of reproductive health service providers regarding childbearing counseling: (a cross-sectional study)

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### **Abstract:**

**Background:** Today, declining fertility is a global concern. Childbearing counselling by reproductive health service providers is one of the ways that helps population growth and increase fertility rates. The present study was conducted to investigate the relationship between the attitude, knowledge, and performance of reproductive health service providers regarding childbearing counselling health centers in Shiraz (Iran) in 2023.

**Methods:** This cross-sectional study was conducted on 212 reproductive health service providers working in health centers in Shiraz (midwives and health care workers) using a random cluster sampling method. The data collection tool in this study was three standard questionnaires to measure attitude, knowledge, and performance. T test, ANOVA, Pearson correlation coefficient, and linear regression models were used to analyze the data) SPSS 22& . P < 0.05)

**Results:** The results showed that the average attitude score of the participants was  $154.66\pm16.27$ , the average knowledge score was  $10.64\pm1.77$ , and the average performance score was  $0.75\pm0.18$ . The findings also showed that there was a significant relationship only between the knowledge score (P < 0.001) and the performance score of the individuals, and for every one-unit increase in the knowledge score, 3% was added to the performance score of the individuals. There was a significant relationship between age (P=0.02), work experience (P=0.01), spouse's age at the time of marriage (P<0.001), duration of cohabitation (P<0.001), and number of children (P<0.001) with the individuals' attitude score. And also there was a significant relationship between monthly income and awareness (P=0.04), a significant relationship between age at the time of current marriage (P=0.03) and spouse's age at the time of marriage (P=0.01) with the individuals' performance score.

**Conclusion:** According to the results of the present study, although fertility service providers did not have a positive attitude towards childbearing, they had adequate knowledge and performance in the field of childbearing counseling. Also, individuals' knowledge had a positive effect on their performance in encouraging couples to have children.

Keywords: Childbearing, Attitude, Knowledge, Counseling, Fertility Service Providers

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# The Effect of Foot Reflexology with Violet Oil on Maternal Post-Cesarean Pain and Fatigue: A Randomized Clinical Trial

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### **Abstract**

**Introduction:** Pain and fatigue are the main complaints of mothers after cesarean section. The violet plant has analgesic properties and is widely used in traditional Iranian medicine for the treatment of various diseases. This study aimed to determine the effect of reflexology with violet oil on maternal post-cesarian fatigue and pain.

**Methods:** In this clinical trial study, 120 cesarean section patients referred to Asaluyeh Hazrat Nabi-Akram Hospital in 2021 were selected by convenience sampling method and randomly assigned to a control group and two intervention groups (40 in each group). In the intervention groups, reflexology was performed with and without violet oil. The control group received routine care only. Data were collected using a questionnaire before and after the intervention and analyzed by t-test, paired t-test chi-square, and one-way ANOVA at P < 0.05.

**Results:** There was no difference between the four groups before the intervention; however, after the intervention, a significant decrease was observed in the mean scores of pain intensity and fatigue in each group and between groups (P < 0.05). In addition, there was a significant difference in the post-intervention mean pain scores of the reflexology and reflexology with violet oil groups (P = 0.001).

Conclusion: The findings of this study showed that reflexology using violet oil is much more effective than reflexology alone, so the use of this method is recommended to relieve post-cesarian pain and fatigue.

Trial Registration: Iranian Registry of Clinical Trials IRCT20211204053272N1. Iranian Registry of Clinical Trials IRCT20211204053272N1. Initial trial registration date is 01/01/2020

**Keywords:** Violet oil, pain, fatigue, reflexology, cesarean section



Early maladaptive schemas in female medical students

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### **Abstract:**

**Background:** Early maladaptive schemas are beliefs about oneself and others that influence how individuals process information and respond to emotional reactions in various situations and interpersonal relationships. Gender stereotypes in different cultures lead to the development of distinct characteristics in the two sexes. Therefore, it is expected that the combination of these characteristics in the two sexes will create different schemas. Also, female students are more affected by stressors than male students due to their vulnerability and greater dependence on family. Therefore, this study was conducted to identify early maladaptive schemas in female medical students.

**Method:** This descriptive study was conducted in a university in the south of the country in 2023. The target population of this study included all female students studying in the second semester of the 2022-2023 academic year. 124 of these students were selected from all available fields using a stratified random sampling method. To identify early maladaptive schemas, a brief questionnaire of 75 questions of Young's (1998) early maladaptive schemas was used. Mean, standard deviation, and percentage indicators were presented in the data description.

**Results:** The results showed that 89 percent of the students surveyed were single and living in dormitories. The average age of these individuals was reported to be 21 years old. 61 percent of the individuals were studying in paramedical fields and 39 percent were studying in health sciences. Schemas in the alertness domain had the highest mean with 24 percent, and schemas in the impaired performance and self-regulation domain had the lowest mean with 15 percent. Of the schemas studied, the rigid criteria/fault-finding schema had the highest mean with 18.26, and the dependency/incompetence schema had the lowest mean with 8.65. In general, three basic schemas of this group of students can be reported, including the unrelenting standards/hyper-criticalness, entitlement/grandiosity, and self-sacrifice schemas.

**Conclusion:** Female students, especially those with good academic or social conditions, are involved in the unrelenting standards and entitlement schemas. These people believe that having high standards will lead to their greater growth in life. Also, in people who are interested in working in the field of health, the schema of self-sacrifice is common. Schema therapy and emotion-focused therapies seem to be effective in treating the primary maladaptive schemas of this group of people.

**Key words:** Primary maladaptive schemas: Female students: Medical sciences



Predicting Life Satisfaction of Female Medical Students Based on Emotion Regulation and Their Early Maladaptive Schemas

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# **Abstract:**

**Background:** Life satisfaction, as a comprehensive indicator of mental health, is a kind of subjective judgment about one's personal life that affects the way one acts and reacts to events in life. Therefore, it is expected to change under the influence of mental schemas and the way one manages emotions. Life satisfaction of medical students is of great importance due to their exposure to the health and lives of individuals. Female students are more vulnerable to stressors. In various studies, their life satisfaction has been reported to be lower than that of male students. As a result, this study aimed to determine the role of emotion regulation variables and early maladaptive schemas in predicting life satisfaction of female students in medical sciences.

**Method:** This study was a correlational study that was conducted using a descriptive method among female students studying in 2023 at a university in the south of the country. The study sample included 124 of these students who were selected from all available fields using a stratified random sampling method. To collect data, Diener's Life Satisfaction Questionnaire (1985), Young's 75-item Brief Early Maladaptive Schemas Questionnaire (1998), and Gross and John's Emotion Regulation Questionnaire (2003) were used. Data analysis was performed using SPSS v21 software and descriptive statistics, correlation coefficient, and multivariate regression.

**Results:** The average life satisfaction of the students studied was  $19.46\pm6$ , the average emotional regulation was  $36.66\pm7.50$ , and the maladaptive schemas were  $179.32\pm58.90$  (the average of the five domains SR, IA, OD, OV, and IL were  $57.51\pm24.23$ ,  $36.67\pm16.63$ ,  $25.60\pm9.49$ ,  $30.23\pm9.30$ , and  $29.32\pm8.94$ , respectively). The results of the study showed that there is a significant positive relationship between the emotion regulation variable and life satisfaction, and a significant negative regulation, other-orientation, and alertness (p<0.005). The regression results also indicated that the emotion regulation variables and the schemas of the separation and rejection domains have the ability to significantly predict life satisfaction (p<0.005).

**Conclusion:** Considering the significant role of emotion regulation in life satisfaction, it seems that training emotion regulation styles plays an effective role in improving life satisfaction. Also, schema therapy, cognitive-behavioral therapy, mindfulness exercises, writing thoughts and feelings, learning conflict resolution skills, and communicating with trustworthy people are among the suggested methods that are useful for treating separation and rejection schemas.

Key words: Emotion regulation 'Life satisfaction . Early maladaptive schemas



# Qualitative Investigation of Barriers and Strategies of Psychological Adjustment in Women with Psychosomatic Disorders

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### **Abstract:**

**Background:** Psychosomatic disorders refer to a group of clinical conditions in which psychological factors play a fundamental and determining role in the onset, exacerbation, or perpetuation of somatic symptoms and signs. These disorders are particularly prevalent among women. Successful management necessitates effective psychological adjustment—a dynamic process through which the individual comes to terms with the illness, modifies their lifestyle, and maintains their well-being. This qualitative study delves into the constituent components of this adjustment from the patients' own perspectives.

**Method:** This qualitative research was conducted using a purposive sampling method on women with psychosomatic disorders until data saturation was achieved. Data were collected through in-depth, semi-structured interviews and analyzed using traditional qualitative content analysis.

**Results:** Data analysis led to the extraction of the main category of 'Psychological Adjustment' and three major subcategories, as follows: 1) Adaptive strategies included spiritual-religious practices, adherence to an optimal diet, physical exercise, engaging in recreational and leisure activities, and immersion in work. 2) Need for skill training and lifestyle development encompassed learning mindfulness, meditation, and thought observation; acquiring new (potentially vocational or personal) skills; and particularly, training in communication skills. 3) Values and goal setting included self-awareness, serving others, creativity, honesty, and healthy living.

Conclusion: The findings indicate that psychological adjustment in women with psychosomatic problems is a multifaceted and active phenomenon. It is not solely focused on the medical management of symptoms but is fundamentally based on lifestyle restructuring, the enhancement of psychosocial skills, and the alignment of daily activities with the individual's value system. Intervention and counseling programs for women with psychosomatic disorders should focus on providing practical training in life skills, reinforcing active adaptive strategies, and assisting patients in exploring and prioritizing their values to set meaningful goals.

**Key words:** Psychological Adjustment, Women, Psychosomatic Disorders, Qualitative Study, Adaptive Strategies, Life Skills.



# Epidemiology of multiple sclerosis in Asian women: Increased disease burden in women and age-geographic pattern 1990-2021

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# **Background**

multiple sclerosis (MS) is a chronic inflammatory, demyelinating, and neurodegenerative disease of the central nervous system (CNS), the epidemiology of which is rapidly changing due to changing economic conditions and lifestyles in countries.

# Methods

The present study is a population-based study utilizing data from the Global Burden of Disease Study 2021 to examine MS among women in Asian countries. The study analyzed age-standardized rates (ASR) for disability-adjusted life years (DALYs), years of life lost (YLL), years lived with disability (YLD), and annual percentage change (APC) across different countries. Trends for all indicators were assessed from 1990 to 2021. Additionally, the relationship between the sociodemographic index (SDI) and the burden of MS in women was evaluated using Pearson correlation analysis.

### Results

The results of the study showed an increasing trend in the burden of disease between 1990 and 2021 for women in Asia, with the highest burden of disease observed in the 35 to 39 age group. The highest DALY index in 2021 was related to Libya (37.60 UI95% (27.81, 50.61)), Iran (34.80 UI 95% (28.50, 41.10)) and Qatar (31.37 UI 95% (22.31, 42.21)), respectively. The percentage change in the DALY index between 1990 and 2021 was increasing in all Asian countries (except Azerbaijan (-1.23%), Kazakhstan (-24.56%), Korea (-17.5%), Singapore (-34.9%), Tajikistan (-62.4%), Uzbekistan (-11.83%) and Turkmenistan (-18.01%). The results of the study showed that there is a positive and significant correlation between the YLD index and the SDI index (r=293., p<0.05), while the correlation between the DALY index and YLL was not significantly associated with SDI (P<0.05).

### Conclusion

The present analysis depicts the increasing burden of MS in Asian women over the past 30 years. Spatial studies identified an uneven distribution of the disease in the Middle East region with a peak burden in the fourth decade of life (35-39 years). These observations highlight the need to adopt intelligent management strategies, based on the epidemiological characteristics and socio-cultural context of each country.

Key Words: Multiple Sclerosis, Sociodemographic Index, Disability-Adjusted Life Years, Asian Women



Epidemiological Patterns in the Burden of Brest cancer attributable to high body mass index with Socio-Demographic Index in Asia

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**Background**: Breast cancer is the most common cancer diagnosed among women worldwide. Obesity is also a risk factor for the incidence and mortality of cancers, including breast cancer. The aim of the present study is to examine the status of high BMI-associated breast cancer in Asian countries and its correlation with the Social Development Index (SDI) indicator.

**Methods**: This population-based study draws on epidemiological data sourced from the Global Burden of Disease (GBD) 2019 database. The dataset encompasses mortality rates, Disability-Adjusted Life Years (DALYs), and age-standardized rates, categorized by gender and country within Asia. The study scrutinizes trends in mortality and DALYs spanning from 1990 to 2019. Additionally, employing Pearson correlation analysis, it examines the relationship between SDI and high BMI-associated breast cancer.

**Results**: The results showed that Age-Standardized DALY Rates (ASDR) and Age-Standardized Mortality Rates (ASMR) of high BMI-associated breast cancer in Asia from 2010 to 2019 had an increasing trend. The highest ASMR and ASDR of high BMI-associated breast cancer were observed in the age group of 20 to 24 years. The results indicated a positive and significant correlation between ASMR of high BMI-associated breast cancer and SDI in Asian countries (r=0.312, p <0.05), and a negative and significant correlation was observed between SDI and the changes in ASMR (r=-0.338, p <0.05). The highest ASMR was related to Malaysia (86.4 per 100,000), Seychelles (64.4 per 100,000), and Mauritius (34.4 per 100,000), and the highest ASDR was related to Seychelles (79.130 per 100,000), Malaysia (3.127 per 100,000), and Mauritius (7.113 per 100,000).

**Conclusion**: The study underscores the heightened mortality risk associated with high BMI-associated breast cancer, particularly in developed nations. Notably, the significant uptick in mortality and DALYs related to high BMI-associated breast cancer across Asia underscores the urgent need for intervention measures to alleviate its burden and mortality rates.

Keywords: Breast cancer, SDI, BMI



# The Burden of Uterine Cancer in Asia, 1990–2021: A Comprehensive Analysis of DALYs and their Association with the Socio-demographic Index (SDI)

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# **Background**

Uterine cancer is one of the most common types of women's cancer in developed countries, and if not treated, it has high complications and mortality. The aim of this study is to evaluate the burden of uterine cancer in Asian countries and its relationship with the development of the countries.

#### Methods

This population-based study draws on epidemiological data sourced from the Global Burden of Disease (GBD) 2021 database. The dataset encompasses Disability-Adjusted Life Years (DALY), Years of Life Lost(YLL) and Years Lived with Disability (YLD) age-standardized rates, categorized by gender and country within Asia. The study scrutinizes trends in YLL YLD and DALY spanning from 1990 to 2021. Additionally, employing Pearson correlation analysis, it examines the relationship between HDI and Burden of uterine cancer.

# Results

The highest DALY and YLL in 2021 was related to the United Arab Emirates, Georgia and Mauritius. The highest percentage decrease in DALY and YLL in 2021 was respectively related to countries Republic of Korea, Maldives and China. The highest burden (YLL, YLD and DALY) of uterine cancer related to the age groups of 50 to 69 years. A statistically significant positive correlation (r=0.5, p-value=0.0002) is observed between the YLD rate of uterine cancer and the HDI. Furthermore, an analysis of variance indicates a significant discrepancy (P<0.05) in YLD, with the highest values observed in regions with very high human development and the lowest in those with low human development.

# **Conclusion**

Considering that the percentage of changes related to the burden of uterine cancer is increasing in some countries, timely strategies for cancer prevention and control should be established. The results of the study showed that the amount of YLD has a positive and significant correlation with the human development index, which can be due to earlier diagnosis and better prevention of the mortality of this cancer in these countries.

Keywords: Uterine cancer, burden of disease, HDI, Asia



# The relationship between sexual function and emotional intelligence among reproductive-aged women: A systematic review

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### **Abstract:**

**Background:** Sexual function (SF) is a critical aspect of women's health, strongly influencing quality of life and relationship satisfaction. Emotional intelligence (EI), defined as the ability to perceive, regulate, and manage emotions, has been identified as an important psychological factor affecting sexual health.

**Methods:** Following PRISMA 2020 guidelines, a systematic search was performed in PubMed, Scopus, Web of Science, ScienceDirect, SID, and Google Scholar (2015–2025). Observational studies using validated instruments for EI and SF were included, and methodological quality was assessed using the Newcastle–Ottawa Scale (NOS).

**Results:** Six eligible studies were identified. Findings consistently showed that higher EI was associated with better SF outcomes, including satisfaction, intimacy, and overall well-being. Key components such as stress management, intrapersonal skills, emotional clarity, and interpersonal relationships emerged as strong predictors of sexual function. While one study reported a negative association between EI and sexual desire, most confirmed positive relationships. Overall, the included studies were of fair to good quality.

**Conclusion:** EI appears to be a significant determinant of women's sexual function, with higher EI linked to enhanced sexual health and relationship satisfaction. Despite promising results, the predominance of cross-sectional designs limits causal interpretation. Further longitudinal and interventional studies are needed to establish causality and evaluate EI-based strategies to promote sexual and psychological well-being.

Keywords: Emotional Intelligence; Sexual Function; Women's Health; Female Sexual Dysfunction



# Review of Free Android-Based Apps for Obstetrics and Gynecology

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### **Abstract:**

**Background:** Obstetrics and gynecology are critical components of women's healthcare. Knowledge in these areas is essential for effective self-care and disease prevention. Given their widespread availability and popularity, mobile applications present a valuable opportunity to educate women on obstetrical and gynecological health. This study aimed to evaluate free Android applications available in Persian that are dedicated to topics in obstetrics and gynecology.

**Method:** This cross-sectional study, conducted in 2025, analyzed all available Android applications related to obstetrics and gynecology. The app identification process involved searching Google and relevant digital marketplaces, including Google Play, as well as the Persian app stores Bazaar and Myket. All identified apps were downloaded, installed, and evaluated. Apps were excluded if they were not free to use, were unrelated to obstetrics and gynecology, or were not available in either English or Persian. The evaluation was performed using a researcher-developed checklist. The collected data were then analyzed with descriptive statistics using Microsoft Excel 2019.

**Results:** A total of 253 Persian Android apps met the inclusion criteria for the study. Based on their categorization in app stores, these apps were classified into the following groups: Medical, Fitness, Tools, and Lifestyle. Within the field of obstetrics and gynecology (OB/GYN), the apps addressed areas such as menstruation, contraception, infertility, pregnancy and childbirth, lactation, menopause, and women's health diseases. Notably, fewer than 5% of the apps had been developed by specialized medical teams. An analysis of the active installation numbers for these apps in the stores revealed that only a limited number had been installed more than 500,000 times.

**Conclusion:** Although these apps have the potential to enhance self-care knowledge by providing information about the menstrual cycle, ovulation, pregnancy, and related topics, they also exhibit several weaknesses, such as poor design and limited content. Given Iran's macro-policy of targeting a youthful population, the Ministry of Health's initiative to develop obstetrics and gynecology apps can significantly enhance the implementation of these policies.

Key words: Obstetrics, Gynecology, Mobile applications, Android



# Practical Interventions to Enhance the Physical and Mental Health of Female Healthcare Workers

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### **Abstract:**

**Background:** Female healthcare workers are among the most vulnerable groups to physical and psychological problems due to the stressful nature of their profession, long working hours, physical and mental workload, and multiple family responsibilities. Traditional approaches focusing only on physical or psychological aspects have proven insufficient to address their needs. Therefore, in recent years, multidimensional and practical interventions—particularly those grounded in the bio-psycho-social model—have attracted increasing research attention.

**Method:** This review study searched PubMed, Google Scholar, and Scopus databases using the keywords "healthcare workers", "mental health", "physical health", "working women" and "interventions". A total of 21 articles published between 2015 and 2025 were identified. After applying inclusion and exclusion criteria, 8 relevant studies were selected and analyzed.

**Results:** Findings revealed three major categories of effective interventions. The first category was individual-focused interventions, including physical activity promotion programs, nutritional improvements, resilience training, and stress reduction techniques, which improved sleep quality, reduced anxiety, and enhanced physical performance. The second category consisted of organizational interventions, such as shift optimization, supportive workplace environments, health promotion programs at work, and preventive measures against burnout, which significantly enhanced mental health and job satisfaction. The third category involved social and supportive interventions, such as strengthening family and peer support and implementing supportive health policies, which increased social capital, reduced feelings of isolation, and improved psychological adaptation.

**Conclusion:** Evidence indicates that the most effective programs are those addressing individual, organizational, and social dimensions simultaneously, offering comprehensive and practical strategies instead of one-dimensional interventions. Such interventions not only improve the physical and mental health of female healthcare workers but also enhance patient care quality and overall healthcare system efficiency.

**Key words:** Female workers, healthcare workers, physical health, mental health, practical interventions



A Systematic Review of the Application of Intelligent Clinical Decision Support Systems in Managing Women's Social and Mental Health in Primary Care

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# **Abstract:**

**Background:** Women's social and mental health are influenced by a complex interplay of biological, psychological, and social factors. Timely diagnosis and management of mental disorders in women, especially within primary care settings, are essential. Intelligent Clinical Decision Support Systems (CDSS) offer promising opportunities to improve the quality and effectiveness of mental health care. This systematic review aims to explore the technologies, applications, and impacts of CDSS in the domain of women's social and mental health.

Method: A systematic search was conducted in international and national scientific databases, including PubMed, Scopus, ScienceDirect, Web of Science, and SID. Studies related to the use of clinical decision support systems (CDSS) for the diagnosis, prediction, and management of women's mental health particularly within primary care and social health contexts were identified and analyzed. Inclusion criteria included studies published after 2010 that employed artificial intelligence and machine learning approaches. Results: Most studies demonstrated that clinical decision support systems (CDSS) based on machine learning algorithms and data mining techniques effectively identify early mental health disorders, such as depression, anxiety, and post-traumatic stress disorder, in women. These systems assist clinicians in decision-making, reduce workload, increase diagnostic accuracy, and improve prognosis. Additionally, mobile health applications integrating CDSS play a crucial role in empowering women, particularly those facing social and economic barriers that limit access to care. Data security and privacy considerations, including the use of emerging technologies such as blockchain, were also emphasized. Conclusion: Intelligent Clinical Decision Support Systems (CDSS) are essential tools for enhancing the management of women's social and mental health in primary care. To fully realize the benefits of these technologies, it is crucial to address technical, ethical, and cultural challenges and to promote interdisciplinary collaboration in system development.

Key words: Clinical Decision Support Systems, Mental Health, Primary Care



Five-Year Trend of Delivery Mode Changes and Related Indicators in Fars Province (2018-2022)

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# **Abstract:**

**Background:** Delivery method, particularly the cesarean section rate, is a crucial indicator of maternal and neonatal health. Excessive cesarean sections can lead to adverse outcomes for both mother and infant. This study aimed to examine the five-year trend of changes in delivery mode and provide descriptive statistics on related indicators in Fars Province.

**Method:** This descriptive study was conducted using registered delivery data in Fars Province from 2018 to 2022. The analyzed variables included delivery mode, year of delivery, infant sex, maternal age, stillbirth, preterm birth (<37 weeks), pregnancy-related risk factors, and delivery-related risk factors. Data were summarized using descriptive statistics.

**Results:** A total of 381,647 deliveries were recorded, of which 59.3% were cesarean sections. The cesarean rate showed a steady increase over the study period: 55.39% in 2018, 56.83% in 2019, 60.05% in 2020, 62.11% in 2021, and 63.41% in 2022. Cesarean delivery was slightly more frequent among male than female infants (60.53% vs. 58.85%). Among all stillbirths, 28.5% occurred by cesarean, and 73% of preterm births (<37 weeks) were delivered by cesarean. The cesarean rate was markedly higher among mothers with at least one pregnancy risk factor (71.57% vs. 56.48% without risk) and among those with at least one delivery-related risk factor (79.21% vs. 57.92% without risk). Cesarean delivery was more frequent among older mothers (44.12% in <25 years, 60.03% in 25–35 years, and 69.72% in >35 years).

**Conclusion:** The increasing trend of cesarean deliveries over the past five years in Fars Province raises serious concerns regarding maternal and neonatal health. The significantly higher rates among preterm births, stillbirths, high-risk pregnancies, and older mothers highlight the need for targeted interventions. Planning to reduce unnecessary cesarean sections and promote safe natural childbirth should be a public health priority in the region.

**Key words:** Cesarean Section, Delivery Mode Trends, Maternal and Neonatal Health, Pregnancy Risk Factors, Preterm Birth, Stillbirth



# The Effect of Psychological Interventions on Reducing Social Stigma in Women with Experiences of Intimate Partner Violence

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# **Abstract:**

**Background:** Intimate Partner Violence (IPV) severely impacts women's mental health and quality of life, often leading to social stigma that prevents help-seeking. This review examines how psychological interventions can effectively reduce this stigma and support IPV survivors.

**Method:** This 2025 narrative review synthesized articles (2010-2025) from PubMed, ScienceDirect, SID, UpToDate, and Google Scholar. Key search terms included "Intimate Partner Violence," "Social Stigma," and "Psychological Interventions" (and Persian equivalents). From 198 initial articles, 45 relevant quantitative and qualitative studies were selected using a researcher-developed checklist after de-duplication.

**Results:** Evidence shows that TF-CBT, EMDR (with group processing), and reframing techniques are effective in mitigating PTSD, dissociative experiences, and consequences of domestic violence, thereby improving women's quality of life. Conversely, short-term psychosocial interventions yielded no significant effect on sexual violence reduction, with some findings remaining inconclusive. We also note that individual differences and sociocultural factors critically influence intervention efficacy. **Conclusion:** While psychological interventions can reduce inevitable consequences of IPV, their short-term effects on sexual violence and across varying cultural contexts are inconsistent. Integrating psychological approaches with culturally adapted, stigma-focused social interventions aimed at reshaping harmful norms appears essential to achieve sustainable and comprehensive impact on the multidimensional problem of domestic violence.

Key words: Intimate partner violence 'Social stigma ' Psychological intervention.



Psychological and Sexual Needs of Women with Spinal Cord Injury

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# **Abstract:**

**Background:** Women with spinal cord injury (SCI) experience psychological and sexual challenges that adversely affect quality of life. This study assessed their specific needs to guide specialized and targeted interventions.

**Method:** This 2025 narrative review synthesized articles (2010-2025) from PubMed, ScienceDirect, SID, UpToDate, and Google Scholar. Key search terms included "Spinal Cord Injuries", "Needs", "Sexual Health", and "Psychological health" (and Persian equivalents). From 176 initial articles, 38 relevant quantitative and qualitative studies were selected using a researcher-developed checklist after de-duplication.

**Results:** The review found that women with SCI face major psychological and sexual health needs affecting quality of life. Psychological issues—such as depression, anxiety, PTSD, and suicidal ideation—are worsened by social, financial, and cultural barriers. Sexual health needs remain unmet due to stigma, misconceptions, and lack of education, with physical limitations adding further challenges. Integrating psychological care and sexual health education into rehabilitation is essential for improving outcomes.

**Conclusion:** Evidence shows that the psychological and sexual needs of women with SCI are interrelated and require integrated rehabilitation. Counseling, sexual skills training, and improved partner communication can enhance quality of life and satisfaction.

Key words: Spinal Cord Injuries Needs Sexual Health Psychological health.



# Depression and Anxiety in Women with Polycystic Ovary Syndrome: A Narrative Review

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# **Abstract:**

**Background:** Polycystic ovary syndrome (PCOS) is the most prevalent endocrine disorder in women of reproductive age, affecting approximately 10–15% of this population. While its clinical and metabolic consequences have been widely studied, the psychological dimensions of PCOS remain less well understood. This narrative review aimed to summarize current evidence on the prevalence, mechanisms, and consequences of depression and anxiety in women with PCOS, and to highlight potential strategies for management.

**Method:** A structured search of PubMed, Scopus, and Google Scholar was conducted for studies published between 2015 and 2025 using the terms "polycystic ovary syndrome," "depression," "anxiety," and "mental health." Priority was given to systematic reviews, meta-analyses, and clinical trials. Fifteen relevant articles were included and critically analyzed.

**Results:** A total of 15 studies indicate that women with PCOS are two to three times more likely to experience depression and anxiety compared to their healthy counterparts, with prevalence rates of approximately 35–40% and 30–45%, respectively. Biological mechanisms such as hyperandrogenism, insulin resistance, and low-grade inflammation interact with psychosocial factors including infertility, obesity, hirsutism, and body image dissatisfaction. This bidirectional relationship creates a cycle in which psychological distress worsens physical symptoms, and physical symptoms in turn reinforce mental health challenges. Consequences include poorer quality of life, disordered eating, reduced physical activity, and lower adherence to treatment. Interventions such as cognitive behavioral therapy, lifestyle modification, and integrated bio-psycho-social approaches demonstrate promise, though evidence on long-term effectiveness is limited.

**Conclusion:** In conclusion, depression and anxiety are highly prevalent among women with PCOS and contribute substantially to disease burden. Routine psychological screening, combined with multidisciplinary care, is essential for effective management. Future research should focus on longitudinal and culturally sensitive studies to better address the complex interaction between PCOS and mental health.

Key words: Polycystic ovary syndrome; PCOS; depression; anxiety; women's health; quality of life



The role of e-Health literacy in Promoting Women's Mental Health: A Narrative Review

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### **Abstract:**

**Background:** Women's Mental Health is influenced by complex biological, psychological, and social factors. E-health literacy is the ability to find, understand and use health information from electronic sources. It is a prominent determinant of mental health outcome. Women are often active users of online health care resources, with greater engagement in e-Health technology. They will better leverage e-Health literacy to improve their mental health if they engage in better coping strategies, reduce anxiety, and empower themselves for self-care. This study aimed to examine the role of e-health literacy in women's mental health, highlighting its contributions, challenges, and implication for practice.

### **Method:**

This study is a narrative review that was conducted through databases including Scopus, PubMed, and Web of Sciences, covering studies published between 2015-2024. Keywords such as "E-health literacy", "digital health," "women", and "mental health" were applied. Both qualitative and quantitative studies investigating the link between e-Health literacy and psychological outcomes in women were included. Inclusion criteria were studies focused on women or gender-disaggregated data, published in peer-reviewed journals, and available in English. Studies with insufficient methodological details were excluded. After removing duplicates and screening abstracts, 119 articles were identified. Following full-text assessment, 45 studies met the inclusion criteria and were included in this review.

**Results:** Findings indicate that increased e-Health literacy relates to improved access to mental health resources, better management of stress, anxiety and depression, and increased engagement in online counseling and peer-support groups. Women with a higher level of digital health skills are able to critically evaluate online information reducing distress related to misinformation. Barriers such as digital divides, inequality in socioeconomic status and a limited amount of culturally relevant content persist, particularly in low resource contexts.

**Results:** E-Health literacy should be incorporated into health promotion frameworks as an important protective factor for women's mental health. Efforts to broaden digital education, increase access to online sources and digital assets, and implementation of e-Health literacy that acknowledges the myriad cultural experiences that intersect with women's mental health are urgent. Future research is needed to understand e-Health literacy longer term, and intervention models that can be embedded in women's mental health programs.

**Conclusion:** E-Health literacy should be incorporated into health promotion frameworks as an important protective factor for women's mental health. Efforts to broaden digital education, increase access to online sources and digital assets, and implementation of e-Health literacy that acknowledges the myriad cultural experiences that intersect with women's mental health are urgent. Future research is needed to understand e-Health literacy longer term, and intervention models that can be embedded in women's mental health programs.

Key words: E-Health literacy, Women's Mental Health, Self-care, Health promotion



# Investigating the effectiveness of psychological interventions on health outcomes in women with HPV: Systematic Review

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# **Abstract:**

**Background:** Human papillomavirus (HPV) is a widespread sexually transmitted viral infection that has serious physical and psychological consequences for women. This can significantly compromise women's quality of life. However, psychological interventions have also been considered as interventions to improve mental health and even clinical outcomes, but their effectiveness is inconsistent in terms of type and intensity. Therefore, the present study aimed to evaluate the impact of psychological interventions on health outcomes in women with HPV.

**Method:** This systematic review was conducted by searching 5 databases, including Embase, PsycInfo, Web of Science, Scopus, and PubMed. All studies that reported the effect of psychological interventions on HPV-positive women were included in the study without any time restrictions. A specific syntax was designed for each database. The articles went through a four-step screening process; the duplicates, title, abstract, and full text were reviewed by two reviewers. Additionally, the quality of the articles was assessed using the CASP checklist. Keywords were extracted based on MeSH and Emtree terms that included "Women with HPV" and "Psychosocial Intervention" and Health.

**Results:** In the first phase, 6,066 studies were extracted. The articles were transferred to EndNote, and 3,063 duplicate articles were removed. Finally, data from four articles were used for writing the present paper. Based on four studies (2017-2025), three studies (motivational interviewing, acceptance and commitment therapy, and group cognitive-behavioral therapy) were positive and significant for women's health outcomes in reducing depression (effect size 0.932 and 0.89), anxiety (effect size 0.943 and reduced to 5.23 at 12 months), stress (effect size 0.185), and improving the quality of life (overall mean 81.67 and six dimensions) with p < 0.01. The fourth trial also showed clinical improvement (regression of HPV infection: 65.91% vs. 42.22%). The second trial (educational intervention) had no

notable impact on anxiety, depression, or cancer worry (p > 0.05), but did enhance short-term knowledge (p = 0.002).

**Conclusion:** More intense psychological interventions are better than educational interventions, and long-term follow-up enhances the stability of effects. Future research should consider comparing interventions and their long-term sustainability.

Key words: Psychosocial Intervention, Women, HPV, Health



# Study of sexual disorders and psychological interventions affecting sexual performance and satisfaction in women with obsessive-compulsive disorder

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**Background:** Obsessive-compulsive disorder, as one of the most important mental disorders, has a significant impact on the quality of an individual and social life. In addition to psychological symptoms, this disease causes serious problems in sexual relationships and marital satisfaction, which leads to sexual dissatisfaction and sexual dysfunction. This study aims to examine the scientific evidence in the field of sexual disorders and psychological interventions affecting sexual performance and satisfaction in women with obsessive-compulsive disorder.

**Methods:** This study is a systematic review of articles published between 2010 and 2025. A search was conducted in the reputable databases PubMed, Scopus, Web of Science, Google Scholar. The relevant keywords used were sexual disorders, obsessive-compulsive disorder, psychological interventions, sexual performance, and sexual satisfaction. After removing duplicate and conference articles, 25 studies were analyzed.

**Results:** Based on the results of studies, women with obsessive-compulsive disorder face a high prevalence of sexual disorders. The average score of sexual disorders based on studies using the FSFI tool is in the dimensions of desire (1.3), arousal (2.85), slipperiness (2.3), sexual satisfaction (3), orgasm (2.85), pain (3.45), which indicates a higher prevalence of sexual disorders in the arousal-orgasmic stage. Factors such as high anxiety, family history, excessive control of thoughts, obsession with cleanliness and contamination, doubt and hesitation, focusing on non-sexual stimuli, and drug treatments are significantly associated with sexual dysfunction. The results of studies on the effectiveness of psychological interventions show that psychological treatments such as cognitive-behavioral therapies, exposure and response prevention, acceptance and commitment have played an effective role in improving sexual function, reducing obsessive-compulsive symptoms, and increasing marital satisfaction in these patients.

**Discussion**: Sexual dysfunctions in women with obsessive-compulsive disorder are common and affect their quality of life and marital relationships. Psychological interventions such as cognitive-behavioral therapy, exposure and response prevention, acceptance and commitment play an effective role in improving sexual function and satisfaction. Future research should focus on optimizing and evaluating the long-term effects of these methods.

**Keywords**: sexual disorders, sexual function, sexual satisfaction, psychological interventions, obsessive-compulsive disorder



The Relationship Between Workplace Environment and Psychosomatic Disorders in Women: The Role of Interventional Strategies for Improvement

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# Abstract:

Background: This study, entitled The Relationship Between Workplace Environment and Psychosomatic Disorders in Women and reduce the psychosomatic problems experienced by working women. Workplace conditions have a profound impact on employees' mental health, particularly among women; however, available evidence on effective biopsychosocial interventions remains fragmented. Therefore, this systematic review aims to examine the relationship between workplace environment and psychosomatic disorders in women, and to explore the role of interventional strategies in improving the well-being of female employees.

Method: A comprehensive systematic search was conducted from 2015 to 2025 in accordance with PRISMA guidelines across databases, including PubMed, Web of Science, Scopus, Google Scholar, and ScienceDirect. MeSH terms and relevant keywords such as "workplace," "women," "psychosomatic disorders," and "mental health" were applied. Studies were screened based on predefined inclusion criteria such as peer-reviewed original articles in English focusing on adult women with workplace issues, psychosomatic disorders, and psychological outcomes. Exclusion criteria were non-original papers, studies without full-text availability, and those with irrelevant topics. Out of 60 articles reviewed, 11 studies met the eligibility criteria and were included.

Results: The findings of this literature review indicate a significant relationship between workplace factors and the biopsychosocial health of working women. Adverse conditions in the workplace, including high job demands, low job control, insecurity, atypical working hours, job stress, technostress, violence and bullying, and inadequate social support, contribute to an increased risk of burnout, anxiety, depression, sleep disorders, musculoskeletal pain, and other psychosomatic complaints. The severity of distress may eventually increase the demand for sick leave and disability pensions. Furthermore,

psychosomatic complaints are reported more frequently in women than in men, and these gender differences are associated with job type and skill level. Intervention studies have demonstrated that approaches such as preventive chair massage, short-term and group psychotherapy programs, regular physical activity, and structured organizational support can effectively reduce psychological and psychosomatic symptoms while enhancing women's job satisfaction and well-being.

**Conclusion**: The workplace plays a vital role in women's biopsychosocial health. Accordingly, effective interventions are essential for improving the psychophysical health of working women and may serve as the foundation for organizational preventive strategies.

Key words: workplace, women, psychosomatic disorders, mental health