

Access this article online
Quick Response Code:

Website: www.jehp.net
DOI: 10.4103/jehp.jehp_682_24

Exploring death anxiety among women with preterm births in Oman

Rasha Abu Baker, Mohammed Qutishat, Khlood Al Dameery

Abstract:

Preterm birth poses a global health challenge, with increasing rates and adverse outcomes. It is a leading cause of death and morbidity in children, impacting their development and contributing to health concerns and long-term consequences for infants and families as well. Death anxiety is an unavoidable, common phenomenon that humans experience across cultures and religions, which the consequences of preterm birth can influence. A descriptive correlational study methodology was used to attain the research's goal. A convenience sampling of 180 women who have preterm babies born before 37 weeks of gestation completed a demographic table and Templer Death Anxiety Scale. The data were collected between January and March 2024. The participants in the study were categorized based on their levels of death anxiety, which were classified as high, medium, and low. The study results revealed that most participants showed a moderate level of death anxiety (70.66%, $n = 106$) in comparison to low levels (24%, $n = 36$) and high levels (5.33%, $n = 8$). The results of our study indicated significant differences in death anxiety among the study participants in terms of age, level of education, employment, and history of child deformities. This study is one of the few studies conducted in Oman exploring the relationship between death anxiety among women who have experienced preterm births in Oman. Women in Oman have moderate death anxiety levels. Several factors were identified in this study; healthcare providers must support those patients using education and psychosocial support to address their emotional needs.

Keywords:

Anxiety, death, preterm births

Introduction

Recent estimates suggest that the rate of preterm birth is increasing in most countries, with a global prevalence of 11.1% of all live births^[1] Each year, approximately 15 million families experience preterm birth^[2] Preterm birth is considered a leading cause of death in children, resulting in approximately 1 million deaths each year.^[1] It is also the leading cause of morbidity in children, resulting in adverse motor, cognitive, behavioral, and psychological sequelae.^[3] Moreover, preterm birth is a significant economic burden in terms of immediate neonatal intensive care, long-term health demands of affected children, and loss

of economic productivity of Women and children.^[3,4]

In Oman, a hospital-based study reported that a significant proportion of births are preterm births; this rate is relatively high and might play an essential role in increasing the low birth weight (LBW) rate in Oman, as most preterm infants have an LBW.^[5] Preterm birth is a stressful life event that may lead to serious long-term effects; it is defined as the birth of a baby before 37 weeks of gestation,^[6] which can cause various complications such as developmental delays, neurological disorders, and long-term disabilities.^[7] Thus, traumatic experiences involve a pattern of psychological and physiological reactions, such as anxiety, depression, irritability, excess fatigue, sleep disorders, and concentration difficulties.^[6,7]

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: WKHLRPMedknow_reprints@wolterskluwer.com

How to cite this article: Abu Baker R, Qutishat M, Al Dameery K. Exploring death anxiety among women with preterm births in Oman. J Edu Health Promot 2025;14:61.

Department of Community
and Mental Health,
College of Nursing,
Sultan Qaboos University,
Muscat, Sultanate of
Oman

Address for correspondence:

Mr. Mohammed Qutishat,
P.O. Box 66, Al-khoud
Muscat 123, Sultanate of
Oman.
E-mail: mohqut@squ.
edu.om

Received: 17-04-2024
Accepted: 08-07-2024
Published: 28-02-2025

Death anxiety is an unavoidable common phenomenon that humans experience across cultures and religions.^[8] It refers to the fear of death, or the process of dying among women of premature infants explicitly/pointedly is a significant concern that generates a reduced sense of safety and stronger fear,^[3] and it can impact the emotional and psychological well-being of women.^[9] Hence/considering various studies have described high rates of symptoms of anxiety and depression following a perinatal loss.^[10]

Death anxiety is a natural experience for women; however, it is affected or influenced by various factors such as age, gender, religion, culture, physical health, life satisfaction, life quality, and life expectancy.^[4,11,12] A substantial increase in shortened gestations was noted in the last decades. However, the birth of a preterm baby can be a stressful and overwhelming experience for women,^[13] which has a higher risk for neonatal morbidity and later neurodevelopmental and behavioral problems leading to impaired short and long-term outcomes relating to cognitive, social, emotional, mental health, and behavioral difficulties into school age and beyond.^[3,14]

Preventing preterm birth and minimizing its impact on preterm babies are crucial global priorities.^[3] It is essential to implement evidence-based interventions to avoid prematurity and address its impacts, especially in low-resource settings or nations.^[7] Premature delivery is often seen as a distressing and possibly traumatic occurrence that necessitates hospitalization in the Neonatal Intensive Care Unit (NICU), resulting in an extended separation between the mother and the newborn.^[12,15] This circumstance may elicit emotions such as despair, anxiety, a dread of mortality, and a distorted perspective of both the maternal role and the support network.^[16,17]

It has been found that providing a healthy family environment and being more caring towards the preterm birth baby helps women overcome psychological problems.^[18] Also, joint family systems play a vital role in building healthy relationships among family members, which indirectly reduces psychological health problems among preterm birth Women^[17] – moreover, engaging women in healthy, productive activities to remain away from stress, depression, and anxiety.^[19] Reciting the Quran and prayers, regularly listening to music for good mental health, and attending awareness workshops for women, especially in developing countries, could be beneficial for reducing preterm birth.^[20]

Studying the extent of death anxiety among women with preterm births in Oman is crucial and significant for several reasons. Understanding the psychological

impact of preterm births on women, particularly about death anxiety, can provide valuable insights into their emotional well-being and coping mechanisms. By delving into this topic, researchers can uncover factors that contribute to heightened anxiety levels in these women, leading to the development of targeted interventions and support systems. This study can also shed light on cultural and societal influences on perceptions of death and birth in Oman, paving the way for culturally sensitive healthcare practices. Ultimately, by studying this important issue, we can improve the quality of care and support provided to women facing the challenges of preterm births in Oman. Regarding the information mentioned above, little is known about the extent of death anxiety among women with preterm birth in Oman. Thus, this aims to examine the extent of Death Anxiety Among Women of Preterm Births in Oman.

Materials and Methods

Study design and settings

The overall aim of this study is to examine the extent of death anxiety among women with preterm birth in Oman. The Sultan Qaboos University College of Nursing's Research Ethics Committee approved the study's conduct. A descriptive correlational study methodology was used to attain the research's goal.

Study participants and sampling

The research sample was obtained via convenience sampling. Power analysis was performed to choose a sample of 180 participants based on the following parameters: 95% confidence and 5% margin of error. The sample includes all women willing to participate in the study, are 18 years old, have had recent deliveries within 1–2 months, and have preterm babies born before 37 weeks of gestation.

Data collection and technique

The data were collected between January and March 2024. The researchers prepared and presented the study questions using a Google form circulated over women's health social media platforms in Oman media. A self-report instrument will be utilized as a measurement tool to investigate the extent of the research phenomena. It consists of two sections: (1) demographic data and (2) Templer Death Anxiety scale.

Templer death anxiety

Templer Death Anxiety Scale was developed by Donald I. Templer in 1970 to measure the extent of death anxiety a person experiences. It consists of 15 items intended to be rated on a dichotomous scale of true or false by the respondents.^[21] The DAS response category was revised by Templer and McMordiein in 1979, introducing a Likert

format for the scale. The Likert-type format provides a rating on a continuum ranging from 1 = strongly disagree to 5 = strongly agree. The score ranges between 15 and 75, where low death anxiety ranges from 15 to 35, moderate death anxiety ranges from 36 to 55, and high death anxiety ranges from 56 to 75. A high score reveals high death anxiety. The tool demonstrates good test-retest reliability of .83 and internal consistency of .84.^[21] Our results show 9.22. The tool will be translated into Arabic and re-translated by field experts.

Ethical consideration

Every woman who took part signed written informed consent documents. Participants were advised that the survey was voluntary and anonymous, and the study's goal, objective, procedures, and possible advantages were explained. Filling out the survey took up to 15 minutes. No personal identifying information was used in the study's data collection. All information was handled confidentially, and only the researchers could access it. The researchers tried to clean up the data of any missing data, incomplete questionnaires, late submissions, incorrect participation, and ineligible participants.

Data analysis

This study's researcher analyzed the data using SPSS Statistics (IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.) at the level of significance $P < 0.05$. Mean and standard deviation frequencies and percentages were used to describe the participants' demographics and Templer Death Anxiety scale results. Further, bivariate statistics, including t-tests and ANOVA, were used to assess the level of death anxiety across participants' socio-demographics.

Results

The data presented offers a comprehensive insight into the demographics and characteristics of a sample group. The mean age of the study participants is 28.1667 (SD = 5.24362). The distribution of individuals across different age brackets reveals a diverse range, with a significant portion falling within the 24–29 years category, constituting 56.0% ($n = 84$) of the total. Regarding education, the majority hold either a Diploma or a bachelor's degree, comprising 38.7% and 38.0% of the total, respectively. Employment status shows a varied landscape, with a notable percentage of individuals being unemployed (43.3%, $n = 65$) or engaged in full-time work (39.3%, $n = 59$). Regarding salary satisfaction, the data indicates that many individuals perceive their salary as either good (37.3%, $n = 56$) or excellent (22.7%, $n = 34$). Overall, the data provides valuable insights into the distribution of age groups, educational backgrounds, employment statuses, and salary satisfaction levels

within the sample population. Table 1 details these results.

The patient's health history data provides a detailed overview of their medical background. The distribution of the number of previous births shows a range of experiences, with a significant portion having one previous birth (28.7%, $n = 43$) and a notable proportion with no previous births (24.7%, $n = 37$). Most patients do not have a medical history (55.3%, $n = 83$) compared to those without one (44.7%, $n = 67$). Psychiatric history, substance history, abuse history during pregnancy, and the use of contraceptives also exhibit varying prevalence rates among the patients. A substantial percentage of patients have reported receiving professional psychological help (36.7%, $n = 55$).

The data on the patient's preterm birth history provides insights into various factors related to preterm births within the sample group. A significant proportion of patients have a history of preterm birth (58.0%, $n = 87$), indicating a prevalent occurrence within the population. Regular Prenatal check-ups are reported to be shared among patients, with 69.3% ($n = 104$) indicating that they have undergone these check-ups. However, the data reveals a concerning trend regarding knowledge of preterm birth, as a substantial percentage (72.7%, $n = 109$) of patients need more adequate information on this topic. Regarding the type of current delivery, most patients have had a standard delivery (56.7%, $n = 85$), while a significant portion has undergone a cesarean section (43.3%, $n = 65$). This data highlights essential aspects of the patient's preterm birth history, emphasizing the need for further education and awareness on this critical issue. Table 2 details these results.

The mean score of death anxiety among our study participants was 41.8333 (SD = 10.64587). The

Table 1: Participants demographics

Item	<i>n</i>	%
Age		
18–23 years	27	18.0
24–29 years	84	56.0
30–35 years	32	21.3
36–41 years	7	4.7
Level of Education		
School	23	15.3
Diploma	58	38.7
Bachelor	57	38.0
Post-Graduate	12	8.0
Employment		
Unemployment	65	43.3
Part-time	26	17.3
Full time	59	39.3

participants in the study were categorized based on their levels of death anxiety, which were classified as high, medium, and low. The study results revealed that most participants showed a moderate level of death anxiety (70.66%, $n = 106$) in comparison to low levels (24%, $n = 36$) and high levels (5.33%, $n = 8$). The results of our study indicated significant differences in death anxiety among the study participants in terms of age ($F = 1.655$, $P = 0.047$), level of education ($F = 2.817$, $P = 0.041$), and employment ($F = 4.645$, $P = 0.011$). Table 3 shows these details.

The results of our study also indicated significant differences in death anxiety among the study participants in terms of history of child deformities ($t = 3.297$, $P < .001$). However, it failed to find any statistical differences in death anxiety in terms of participant health history and previous preterm birth histories. Details are available in Table 4.

Discussion

The mean score of death anxiety among our study participants was 41.8333 (SD = 10.64587). The participants in the study were categorized based on their levels of death anxiety, which were classified as high, medium, and low. The study results revealed that most participants showed a moderate level of death anxiety (70.66%, $n = 106$) in comparison to low levels (24%, $n = 36$) and high levels (5.33%, $n = 8$), which is in line with other previous studies.^[22] The modest level of death anxiety seen among women who had undergone preterm births in Oman may be related to many causes. Preterm births sometimes cause mothers to experience heightened levels of stress, worry, and apprehension due to the early birth of their kids.^[23] This unexpected event might trigger feelings of vulnerability, helplessness, and a reduced sense of control, thereby intensifying worries about the well-being and survival of their children.^[24] In addition, the mental and physical challenges associated with caring for a preterm newborn in the neonatal intensive care unit (NICU) might heighten the feelings of concern and distress experienced by these moms.^[25] It is essential to consider the potential impact of the cultural and social background in Oman. Societal expectations and conventions regarding motherhood and child-rearing can influence women's perception of their responsibilities and obligations, leading to additional stress and discomfort.^[26]

One significant factor is the lack of adequate information and support available to these women regarding preterm birth complications, neonatal care, and coping strategies.^[27] Insufficient knowledge about the risks associated with preterm birth and the potential outcomes for their babies can increase anxiety levels

Table 2: Participant's health history

Item	Number	Percentage
Number of Previous Birth		
0	37	24.7
1	43	28.7
2	36	24.0
3	23	15.3
More than three	11	7.3
Medical History		
Yes	67	44.7
No	83	55.3
Psychiatric History		
Yes	27	18.0
No	123	82.0
Substance History		
Yes	19	12.7
No	131	87.3
Abuse History During Pregnancy		
Yes	57	38.0
No	93	62.0
Use of Contraceptive		
Yes	94	62.7
No	56	37.3
Professional Psychological Help		
Yes	55	36.7
No	95	63.3
History of Preterm Birth		
Yes	87	58.0
No	63	42.0
Regular Prenatal Check Up		
Yes	104	69.3
No	46	30.7
Knowledge of Preterm Birth		
Yes	41	27.3
No	109	72.7
Type of Current Delivery		
Norman	85	56.7
CS	65	43.3

Table 3: Death anxiety differences among the participant demographics

	Mean	SD	Test	P
Age				
18-23 years	42.5926	9.27884	$F=1.655$	0.047
24-29 years	40.2024	12.01984		
30-35 years	44.2500	7.99597		
36-41 years	47.4286	2.22539		
Level of Education				
School	38.9565	13.33307	$F=2.817$	0.041
Diploma	39.8276	10.45313		
Bachelor	44.2456	9.77475		
Post-Graduate	45.5833	6.55686		
Employment				
Unemployment	40.6462	11.72928	$F=4.645$	0.011
Part-time	38.0000	10.04390		
Full time	44.8305	8.86324		

* $P < 0.001$

Table 4: Death anxiety differences among the participants' health history and preterm birth history

	Mean	SD	Test	P
Number of Previous Birth				
0 Birth	41.2162	9.74433	$F=1.713$	1.713
1 Birth	39.1163	13.34917		
2 Births	41.7778	10.71211		
3 Births	45.5217	6.13388		
More than 3	47.4444	4.66667		
Medical History				
Yes	41.6782	11.05114	$t=0.212$	0.832
No	42.0476	10.14321		
Substance History				
Yes	38.7895	11.44833	$t=1.253$	0.223
No	42.2748	10.49766		
Abuse history during pregnancy				
Yes	43.4386	9.82529	$t=1.494$	0.138
No	40.8495	11.05514		
Use of Contraceptive				
Yes	41.7979	10.81971	$t=0.053$	0.958
No	41.8929	10.44410		
Professional psychological help				
Yes	40.5091	11.34129	$t=1.128$	0.262
No	42.6000	10.20471		
History of Child Deformities				
Yes	44.7429	11.70653	$t=3.297$	$P<0.001$
No	39.2875	8.46936		
History of Preterm Birth				
Yes	41.6782	11.05114	$t=0.212$	0.832
No	42.0476	10.14321		
Prenatal Check Up				
Yes	41.2596	11.09097	$t=1.051$	0.296
No	43.1304	9.55129		
Knowledge of Preterm Birth				
Yes	41.7561	9.96690	$t=0.057$	0.955
No	41.8624	10.93454		
Type of Current Delivery				
Yes	41.6923	11.42629	$t=0.139$	0.890
No	41.9412	10.07632		

* $P<0.001$

and uncertainty among mothers.^[28] Limited access to healthcare resources, specialized medical facilities, and mental health services in some regions of Oman may also impact women's ability to receive timely and comprehensive support during this challenging time.^[29] Furthermore, societal stigma or misconceptions surrounding preterm births and neonatal health issues can lead to feelings of isolation, shame, or guilt among affected women, further exacerbating their anxiety levels.^[30]

The emotional burden of seeing their children's frail health and probable medical difficulties in the NICU is another factor that might contribute to the moderate degree of death anxiety among mothers of preterm

deliveries in Oman.^[25] Mothers of premature infants often encounter the painful situation of seeing their newborns connected to medical apparatus, receiving therapies, and confronting unclear health results.^[31] This constant exposure to their infants' vulnerable condition can intensify feelings of fear, worry, and helplessness, leading to heightened levels of anxiety and emotional distress.^[32] The emotional rollercoaster of hope and despair as they navigate the ups and downs of their babies' health can significantly impact these mothers' mental well-being and contribute to their death anxiety.

The results of our study indicated significant differences in death anxiety among the study participants in terms of age ($F = 1.655$, $P = 0.047$). Older women (mean = 47.4286, $SD = 2.22539$) recorded high levels of death anxiety compared to younger women (mean = 47.4286, $SD = 2.22539$), which is supported by other studies.^[33] These factors can be ascribed to a range of causes, such as the accumulation of life experiences associated with loss and mortality, increased health concerns or pre-existing medical conditions, additional responsibilities like caregiving or financial obligations, and disrupted plans or retirement strategies.^[34] These several factors have the potential to cause increased levels of anxiety around mortality and the inherent unpredictability of the future. This highlights the need for healthcare professionals to provide tailored support and resources to help older women successfully navigate these complex situations.^[35]

The result of our study indicated significant differences in death anxiety among mothers with preterm birth in terms of educational level ($F = 2.817$, $P = 0.041$). Women with higher qualifications showed higher levels of death anxiety compared with those with lower qualifications. Within the framework of the results above, it is conceivable that women possessing higher levels of education may exhibit an enhanced level of consciousness about medical knowledge and the potential hazards linked to premature birth.^[36] The heightened level of awareness may lead to an escalation in concern for the welfare of their kids and themselves.^[36] Moreover, women who possess advanced education may possess elevated aspirations for themselves and their offspring, resulting in heightened levels of tension and anxiety when confronted with unforeseen obstacles such as premature delivery.^[37] On the other hand, women with lower credentials may have different perspectives and approaches when addressing the issue. Some people may rely more on external support networks or have specific expectations about medical outcomes, which may result in reduced levels of fear of death when facing similar circumstances.^[38]

The results of our study indicated significant differences in death anxiety among women with preterm death in

terms of working hours ($F = 4.645$, $P = 0.011$). Women with full-time working hours had higher levels of death anxiety compared with part-time and unemployed. The elevated prevalence of death anxiety among women who experienced preterm delivery and engaged in full-time employment, as opposed to those who work part-time or are unemployed, could potentially be attributed to heightened stress levels resulting from the need to manage work obligations and apprehensions regarding their infant's well-being.^[39] In addition, the scarcity of time for emotional processing and coping strategies, the financial hardships linked to supporting a family after a premature birth, and the potential reduction in access to social support may also contribute to this result.^[40] To alleviate this heightened anxiety, it is recommended to emphasize self-care, seek support from family and professionals, and consider therapy or counseling as valuable methods for addressing the challenges faced in this situation.

The results of our study also indicated significant differences in death anxiety among the study participants in terms of the history of child deformities ($t = 3.297$, $P < .001$), which is in line with other investigations.^[41] Women with a previous history of childbirth with deformities (mean = 44.7429, SD = 11.70653) had higher levels of death anxiety compared to others (mean = 39.2875, SD = 8.46936). Women who have previously had infants with congenital abnormalities may encounter elevated levels of death anxiety as a result of many circumstances. A potential factor might be the psychological anguish and anxiety linked to the responsibility of caring for a child with exceptional requirements or physical abnormalities.^[42] This particular encounter has the potential to induce increased levels of concern for the well-being and death of both their other offspring and them.

Moreover, the apprehension of encountering comparable obstacles in subsequent instances or the ambiguity surrounding their offspring's prospects might lead to heightened mortality anxiety among these women.^[43] Therefore, it is imperative to offer assistance and allocate resources to aid these ladies in managing their apprehensions and distress. Furthermore, the fear of facing similar challenges in future situations or the uncertainty about the prospects of their children may result in increased mortality anxiety among these mothers.^[43] Hence, it is crucial to provide support and invest resources to help these women cope with their anxieties and suffering.

The worry of genetic susceptibility or recurrence of congenital abnormalities in future pregnancies may be an additional factor that may contribute to heightened levels of death anxiety in mothers who have previously

given birth to babies with such abnormalities.^[44] The mothers may have heightened death anxiety because of the uncertainty and concern over the prospective health consequences of their future children.^[45] To promote their emotional well-being and mental health, it is vital to address this fear and offer suitable assistance and tools to assist them in navigating these worries.^[8]

Limitations and suggestions

Researchers used surveys to collect data, which is subjected to recall bias. However, the data was collected directly from the women through a social media platform, which may affect their responses. The cross-sectional nature of the study hinders the temporal relationship between the variables. A future longitudinal study is recommended to show the relationship's direct nature. Our study highlights the prevalence of moderate death anxiety among women who have experienced preterm births. Examining the investigation of death anxiety in women who have had preterm deliveries in Oman has several ramifications that might significantly influence maternal healthcare practices and research in the nation. This study may provide vital therapeutic insights for healthcare professionals, augmenting their comprehension of the psychological ramifications of preterm deliveries on women, specifically with regards to death dread, therefore resulting in enhanced treatment and assistance for these people.

Furthermore, this study has the potential to enhance research in the realm of maternal health and psychology by adding to the current body of information and providing direction for future investigations. The results may impact the formulation of healthcare policies and standards for maternity care, mental health assistance, and handling preterm deliveries in Oman. Furthermore, this study may result in the identification of the need for customized support services that specifically target the mental well-being and issues associated with death fear in women who have had preterm deliveries. Moreover, by increasing community knowledge of the emotional difficulties experienced by these women, it is possible to cultivate empathy and comprehension and perhaps enhance communal support structures for those facing similar circumstances.

Conclusion

This study, conducted in Oman, explores the extent of death anxiety among women who have experienced preterm births. The findings reveal that women in Oman exhibit moderate levels of death anxiety. Various factors such as age, level of education, employment status, and history of child deformities were identified to influence death anxiety levels among the participants. Healthcare providers are encouraged to offer support through

education and psychosocial assistance to address the emotional needs of these women during this challenging time. This study sheds light on an essential aspect of maternal health in Oman. It emphasizes the significance of addressing death anxiety among women who have undergone preterm births to improve their well-being and quality of care.

Acknowledgement

The author thanks the College of Nursing/SQU, nurses, and mothers who contributed significantly to this research work. Their cooperation and support were critical to the successful completion of this project.

Financial support and sponsorship

College of nursing dean fund.

Conflicts of interest

There are no conflicts of interest.

References

- Petersen IB, Quinlivan JA. Fatherhood is too soon. Anxiety, depression, and quality of life in fathers of preterm and term babies: A longitudinal study. *J Psychos Obstet Gynecol* 2021;42:162-7.
- WHO. Preterm Birth Key Facts. 2017. Available from: <https://communitymedicine4all.com/2017/11/18/who-updates-fact-sheet-on-preterm-birth>.
- Green J, Petty J, Whiting L, Fowler C. Exploring modifiable risk factors for premature birth in the context of COVID-19 mitigation measures: A discussion paper. *J Neonat Nurs* 2021;27:172-9.
- Gurdogan EP, Kınıcı E, Aksoy B. The relationship between death anxiety and attitudes toward the care of dying patients in nursing students. *Psychol Health Med* 2019;24:843-52.
- Al-Riyami N, Al-Badri H, Jaju S, Pillai S. Short-term outcomes of atosiban in the treatment of preterm labour at the Sultan Qaboos University Hospital, Muscat, Oman: A tertiary care experience. *Sultan Qaboos Univ Med J* 2021;21:e260.
- Minschart C, De Weerd K, Elegeert A, Van Crombrugge P, Moyson C, Verhaeghe J, *et al.* Antenatal depression and risk of gestational diabetes, adverse pregnancy outcomes, and postpartum quality of life. *J Clin Endocrinol Metab* 2021;106:e3110-24.
- Vogel JP, Chawanpaiboon S, Moller A-B, Watananirun K, Bonet M, Lumbiganon P. The global epidemiology of preterm birth. *Best Pract Res Clin Obstet Gynaecol* 2018;52:3-12.
- Salehnezhad A, Zendetalab H, Naser S, Voshni HB, Abrishami M, Astaneh MA, *et al.* The effect of education based on the health belief model in improving anxiety among mothers of infants with retinopathy of prematurity. *J Educ Health Promot* 2022;11:424.
- McKee K, Admon LK, Winkelman TN, Muzik M, Hall S, Dalton VK, Zivin K. Perinatal mood and anxiety disorders, severe mental illness, and delivery-related health outcomes, United States, 2006–2015. *BMC Women's Health* 2020;20:150.
- Pandya A-K, Kathuria T. Death anxiety, religiosity, and culture: Implications for the therapeutic process and future research. *Religions* 2021;12:61.
- Nafei A, Rashedi V, Ghafuri R, Khalvati M, Eslamian A, Sharifi D, *et al.* Death anxiety and related factors among older adults: Findings from a national study. *Iran J Ageing*. 2024. doi: 10.32598/sija.2023.1106.1.
- Rashedi V, Ebrahimi B, Mohseni MS, Hosseini M. Death anxiety and life expectancy among older adults in Iran. *J Caring Sci* 2020;9:168.
- Alipanahpour S, Zarshenas M, Akbarzadeh M. Promotion of posttraumatic stress disorder following traumatic birth experiences and the influence of maternity religious Attitude: A correlational study. *J Educ Health Promot* 2021;10:385.
- Chen M, Wang G, Sun X, Meng M, Jiang Y, Sun W, *et al.* The effects of maternal prenatal depression on child mental health: The moderating role of maternal childhood trauma. *J Affect Disord* 2023;324:403-9.
- Tomfohr-Madsen L, Cameron EE, Dunkel Schetter C, Campbell T, O'Beirne M, Letourneau N, *et al.* Pregnancy anxiety and preterm birth: The moderating role of sleep. *Health Psychol* 2019;38:1025.
- Ijabi J, Moradi-Sardareh H, Afrisham R, Seifi F, Ijabi R. SKA2 gene—A novel biomarker for latent anxiety and preterm birth prediction. *Eur J Obstet Gynecol Reprod Biol X* 2019;237:106-12.
- Trumello C, Candelori C, Cofini M, Cimino S, Cerniglia L, Paciello M, *et al.* Mothers' depression, anxiety, and mental representations after preterm birth: A study during the infant's hospitalization in a neonatal intensive care unit. *Front Public Health* 2018;6:359.
- Sahin D, Buken N. Death anxiety and concept of good death in the elderly. *Turk J Geriatr* 2020;23:18-26.
- Mirzakhani K, Ebadi A, Faridhosseini F, Khadivzadeh T. Pregnant women's experiences of well-being in high-risk pregnancy: A qualitative study. *J Educ Health Promot* 2023;12:6.
- Smorti M, Ginobbi F, Simoncini T, Pancetti F, Carducci A, Mauri G, *et al.* Anxiety and depression in women hospitalized due to high-risk pregnancy: An integrative quantitative and qualitative study. *Curr Psychol* 2023;42:5570-9.
- Nia HS, Ebadi A, Lehto RH, Mousavi B, Peyrovi H, Chan YH. Reliability and validity of the Persian version of Templer death anxiety scale-extended in veterans of Iran–Iraq warfare. *Iran J Psychiatry Behav Sci* 2014;8:29.
- Hoyer J, Wieder G, Höfler M, Krause L, Wittchen H-U, Martini J. Do lifetime anxiety disorders (anxiety liability) and pregnancy-related anxiety predict complications during pregnancy and delivery? *Early Hum Dev* 2020;144:105022.
- Petch S, DeMaio A, Daly S. Prediction of recurrent preterm delivery in asymptomatic women an anxiety-reducing measure? *Eur J Obstet Gynecol Reprod Biol* 2019;4:100064.
- Bright K, Becker G. Maternal emotional health before and after birth matters. In: Premji, S, editor. *Late Preterm Infants: A Guide for Nurses, Midwives, Clinicians and Allied Health Professionals*. Cham: Springer; 2019. p. 17-36.
- Ionio C, Mascheroni E, Colombo C, Castoldi F, Lista G. Stress and feelings in mothers and fathers in NICU: Identifying risk factors for early interventions. *Prim Health Care Res Dev* 2019;20:e81.
- Ghouse S, McElwee G, Meaton J, Durrah O. Barriers to rural women entrepreneurs in Oman. *Int J Entrep Behav Res* 2017;23:998-1016.
- Al Hadi A, Dawson J, Paliwoda M, Walker K, New K. Healthcare providers' views of information, support, and services offered to women in the postnatal follow-up care period in oman: A qualitative study. *Int J Community Based Nurs Midwifery* 2023;11:2.
- AlHadi A, Dawson J, Paliwoda M, Walker K, New K. Healthcare providers' views of information, support, and services offered to women in the postnatal follow-up care period in Oman: A qualitative study. *Int J Community Based Nurs Midwifery* 2023;11:2-13.
- Al-Mahrrouqi T, Al-Alawi K, Al-Alawi M, Al Balushi N, Al Ghailani A, Al Sabti H, *et al.* A promising future for tele-mental health in Oman: A qualitative exploration of clients and therapists' experiences. *SAGE Open Med* 2022;10:20503121221086372.

30. Cesare N, Oladeji O, Ferryman K, Wijaya D, Hendricks-Muñoz KD, Ward A, *et al.* Discussions of miscarriage and preterm births on Twitter. *Pediatr Perinat Epidemiol* 2020;34:544-52.
31. Varma JR, Nimbalkar SM, Patel D, Phatak AG. The level and sources of stress in mothers of infants admitted to the neonatal intensive care unit. *Indian J Psychol Med* 2019;41:338-42.
32. Akkoyun S, Tas Arslan F. Investigation of stress and nursing support in mothers of preterm infants in neonatal intensive care units. *Scand J Caring Sci* 2019;33:351-8.
33. Rababa M, Hayajneh AA, Bani-Iss W. Association of death anxiety with spiritual well-being and religious coping in older adults during the COVID-19 pandemic. *J Relig Health* 2021;60:50-63.
34. Boudjemadi V, Posner A, Bastart J. Older people and death-thought accessibility: The association between death and older people in memory. *Death Stud* 2022;46:666-74.
35. Askarizadeh G, Poormirzaei M, Bagheri M. Mindfulness facets and death anxiety: The role of cognitive flexibility components. *Psychol Stud* 2022;67:208-17.
36. Farley G. *Death Anxiety and Death Education: A Brief Analysis of the Critical Issues Delivering Cancer and Palliative Care Education*. CRC Press; 2018. p. 73-84.
37. O'Nions E, Wolke D, Johnson S, Kennedy E. Preterm birth: Educational and mental health outcomes. *Clin Child Psychol Psychiatry* 2021;26:750-9.
38. Chandra N, Smitha MV. Functional status, social support, and anxiety among postnatal women of Eastern India. *Eur J Obstet Gynecol Reprod Biol X* 2023;20:100238.
39. Jayachandran S. Social norms as a barrier to women's employment in developing countries. *IMF Econ Rev* 2021;69:576-95.
40. Jephcott P, Seear N, Smith JH. *Married Women Working*. Routledge; 2023.
41. Eraslan P, Tak S. Coping strategies and relation with depression levels of mothers of children with congenital heart diseases. *Turk J Clin Lab* 2021;12:391-7.
42. Turesheva A, Aimagambetova G, Ukybassova T, Marat A, Kanabekova P, Kaldygulova L, *et al.* Recurrent pregnancy loss etiology, risk factors, diagnosis, and management. A fresh look into a whole box. *J Clin Med* 2023;12:4074.
43. McNestry C, Killeen SL, Crowley RK, McAuliffe FM. Pregnancy complications and later life women's health. *Acta Obstet Gynecol Scand* 2023;102:523-31.
44. Dimitriadis E, Menkhorst E, Saito S, Kutteh WH, Brosens JJ. Recurrent pregnancy loss. *Nat Rev Dis Prim* 2020;6:98.
45. Girardi G, Bremer AA. We are advancing research on recurrent pregnancy loss: Overcoming obstacles and opportunities for translation. *Am J Reprod Immunol* 2022;87:e13508.