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Explain the Concerns and Needs of Reproductive Health in Pregnant Women with Substance Use Disorder

Abstract

Not paying attention to the needs of pregnant women with substance use disorder increases their vulnerability. The reproductive health needs of this group of women are influenced by culture and society**.** This study was conducted to explain the needs and concerns of reproductive health in pregnant women with substance use disorder in Iran. This study was qualitative. This study's data collection was performed through in-depth semi-structured interviews with 18 pregnant women with substance use disorder. Data analysis was performed by *Granheim&Landmann* content analysis.
A total of 1141 codes were extracted from the interviews, which were compared based on content similarity and were organized into four main categories and 13 subcategories. The main categories include: 1- the need for comprehensive support, 2- the challenge of fear and concern, 3- problems during pregnancy, and 4- lost human rights. Pregnant women with substance use disorder in various aspects of reproductive health need health, social, economic, and educational support. There were also a number of concerns, including financial, not quitting smoking, negative labels, and fear of not playing the role of wife.

The analysis results showed that many needs and concerns of pregnant women with substance use disorders in Iran had not been met, so health policymakers and planners should prioritize the needs of this group of women in health programs.

Keywords: *Pregnant women with substance use disorders, Reproductive health needs, Reproductive health concerns, Qualitative study*

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1. Background

Substance use during pregnancy is one public health concern that adversely affects maternal and fetal health (1). The prevalence of substance use disorder during pregnancy has increased over the past decade (2). According to the *National Survey* on *Substance Use and Health* in 2017, the prevalence of substance use among women of reproductive age was 1.4% (3), alcohol consumption was 8.3%, illicit substances were 6.3%, and smoking was 10% during pregnancy (4). The number of births by substance-using mothers was more than 500,000 births In 2018 (5). Substance use in pregnancy is associated with adverse consequences pregnancy (6), including increased complications of childbirth and low birth weight (7), fetal growth restriction, preterm labor and stillbirth (8), congenital defects (9), neonatal abstinence syndrome (10) and increased health costs (11), abortion (12), ectopic pregnancy (13), placental disorder (14) and infant death (12). Issues such as physical and sexual assault, domestic violence, and other mental health problems are high among women with substance use (15). Also, this group is at risk of transmitting infectious diseases such as HIV due to high-risk behaviors (16). The prevalence of infectious diseases among injecting substance users, such as HIV, is 12.7% (17), tuberculosis is 23.6% (18), and HCV in substance users is 8% (19). Women users face stigma (20) and have limited access to health services due to social stigma (21). Also, this group of women may not seek health services due to fear, guilt, embarrassment, and fear of legal intervention (220). *Roberts's study* (2011) found that pregnant women who consumed alcohol may refuse prenatal care or delay such care (23). Pregnancy can be a stigma associated with substance use, with special fear and concerns for women who have used substances due to past negative experiences (24, 25, 26). Women substance users have special needs in reproductive health services (27). The vulnerability of this group of women may be exacerbated by unmet health needs (28). As a result, it is necessary to investigate the reproductive health needs of substance users. Many studies have shown that attention to reproductive health is not common among women with substance use disorders and service providers. The study results showed that many women with substance use disorders do not ask questions about their reproductive health needs, and many are unaware of their reproductive health needs (29). Understanding pregnant women's needs and concerns about using substances is essential to gain insight into modifying behaviors and meeting reproductive health needs. Qualitative research is a useful approach in this field to discover and understand the nature of a phenomenon (30). Qualitative research aims to increase the understanding of the studied phenomenon and a rich description of the findings (31). Qualitative research can look at issues and problems from a deep perspective and explores differences in this field with an open approach (32). They increase people's understanding of concepts with detailed descriptions (33). Regarding studies on reproductive health in Iran, they focused more on HIV (34), adolescents (35),

students (36), and the studies on reproductive health needs and concerns in pregnant women using substances are insufficient. This study was performed to explain the concerns and needs of reproductive health in women who use a substance during pregnancy.

2. Objectives

This study was conducted to explain the needs and concerns of reproductive health in pregnant women with substance use disorder in Iran.

3. Methods

This qualitative study was conducted to explain the needs and concerns of pregnant women with substance use disorder in the field of reproductive health. Inclusion criteria included Iranian pregnant women with a definite diagnosis of substance use disorder (according to their statement or having a file in the center to diagnose substance use disorder). This study was conducted qualitatively with a conventional content analysis approach. Data collection lasted six months from January 2016 to June 2021. The data collection method was an in-depth semi-structured individual interview with pregnant women with substance use disorder. Sampling was performed by a purposeful method and then the snowball method. The participants were informed about their voluntary participation in the study and recorded the interviews of the participants regarding the objectives and confidentiality of the interview and the results, then written informed consent was obtained from them. The researcher tried to include participants with different age groups and living conditions, from illiterate to literate and unemployed and employed, living in rural and urban areas. Data was collected using in-depth semi-structured individual and face-to-face interviews in one session until saturation was reached. Data triangulation was achieved by collecting data at different times and places and using different sampling protocols. In this study, data triangulation was obtained by two methods of data sampling (purposeful sampling and snowball).

The interview guide was initially set up. The number of participants was 18. All interviews were conducted in one session, so 18 interviews were obtained. Each interview lasted 60 to 90 minutes (average 75 minutes). The place and time of the interview were at the participants' preferences, including health centers, behavioral counseling centers, parks, workplaces, and religious sites. Questions about reproductive health included needs and concerns of reproductive health. Also, before the start of each interview, questions were asked about demographic characteristics and substance use disorder. The interview started with the question, " How is the status of reproductive health in this pregnancy?" then, concerns and needs in the field of reproductive health during pregnancy were asked based on the initial answers and based on the interview guide. Also, suggestions were made to meet these needs. All interviews were recorded with the participant's permission and then typed word for word. The audio files were stored on the researcher's personal computer. The conventional content analysis was used in the present study. Data were analyzed using the *Graneheim&landman* method in 2004 (37). The steps are as follows:

All recorded interviews were extracted immediately after the performance and then read several times to overview. The text was divided into semantic units, and in the next step, it was summarized and converted into codes. The codes were compared based on their similarities and differences, and they were placed in sub-classes based on the similarities. In the next step, the subclasses were compared and combined based on internal similarities and external differences, finally showing the primary classes. MAXQDA 10 software was used to manage the data. The four criteria of Guba and Lincoln (1997) (38), including credibility, dependability, transferability, and confirmability, were used to validate the data. Credibility was obtained through a long-term presence in the research field and a review of interview texts by study participants (member's cheek). Also, the interview text was reviewed along with the results of coding and classes extracted by an expert in qualitative research. Similar codes were obtained by applying the opinion of external observers (external check). To generalizability, diverse samples of participants with maximum diversity of age, education, substance use disorder, and social and economic status were recruited. To increase transferability, the researcher tried to accurately record the research path and the decisions made in this path and write the report to enable other researchers to follow the research path and steps. After reporting the extracted codes and classes, it was again given to two research team members and faculty members who had qualitative study experience to check the correctness of the process. To increase reliability, the audit was performed by providing documents specifications, including audio recording, data reduction, product analysis, data reconstruction, synthesis of products, the process of notes, coding, or quoting the same speech of the participants.

4. Results

Eighteen pregnant women with substance use disorder aged 15 to 35 years (mean age 26.5 years) were interviewed. More details of the participants are given in "Table 1."

Content Analysis of Qualitative Data

A total of 1141 codes were extracted from the interviews, which were compared based on content similarity and organized into four main categories and 13 subcategories "Table 2". The main categories include: "need for

comprehensive support," " challenge of fear and concern ", " problems during pregnancy, "and "lost human rights." In the following, the concepts of each main category extracted are described by providing direct quotations from the study participants.

Need for Comprehensive Support

It is one of the main categories extracted from this study that included three subcategories: "need for social and economic support," "need for health support," and "need to access training."

1. **Need for Social and Economic Support**

A vital sub-class was the need for socio-economic support, ranging from the voices of women consumers to the need to change society's views and the government's financial support. For example, participant 6 stated: "I would like people to change their view of us and not look at us as a prostitute."

Nearly half of the participants expressed the need for financial support as their most important need during pregnancy. For example, participant 1 stated: " I would like to get rid of this homeless; I would like to have a house and not have to cringe at others to take a bath."

2. Need for Health Support

Other subcategories extracted in this study were the need for health support, which is intertwined with additional needs. "I need to have a painless delivery and my doctor to help me with my delivery and treat me like everyone else," said participant 8. Participant 12 also stated: "The distance from my house to the clinic is very long, I have felt bad, many times during my pregnancy, but I could not go because it was far away."

3. Need to Access Training

Another subcategory required access to training. Many participants expressed their most crucial need for training on the effects of substance use on the fetus. Participant 2 stated: "I really need to know if my addiction affects the child or not. Does breastfeeding make a child addicted or not?" A number of them raised the need for sexual health training during pregnancy. For example, participant 9 stated: "I would like to know about AIDS. I heard its name, it is said that it is a dangerous disease that is high among addicted people, but I do not know much more about it."

Challenge of Concern and Fear

In this study, the "challenge of worry and fear" emerged as one of the main classes, which was divided into three subcategories, including "fear of failure to play the role of a woman, " "fear of negative labeling," "fear of failure to quit."

1. Fear of Failure to Play the Role of a Woman

One of the subcategories that emerged in this study was the concern about the failure to play a woman's role. Participant 10 stated: "A lot of times, I'm afraid I'll not be able to take care of this child; I can not take good care of him, and the welfare organization will take him away from me." Interviewee 15 stated: "I prefer to give any money achieved for drug (heroin); I do not even eat to be able to use the substance. The moment I need to use the substance, I do not think of anything. The heroin made me so spiritless that I am ready to be careless of my child but use the substance."

2. Concerns about Negative Labels

Concerns about the negative labeling of subcategories are related to the challenge of fear and concern. Part of the women's concern stemmed from the behavior and speech of those around them; for example, participant 11 acknowledged: " We are all worried about blame, teasing, and sarcasm those around us; they do not accept me and do not count on my words."

On the other hand, another participant expressed concern about the judgment of those around her: "I often have an infectious vaginal discharge; I cannot tell that midwife because I'm afraid she will think that I'm a Prostitute because I'm addicted" (participant 15).

3. fear of failure to quit

One of the subcategories that emerged was the fear of failure to quit. The treatment of substance use disorder is ups and downs, sometimes accompanied by unbearable pressure that requires support and motivation in the female consumer. Participant 12 considered the camp environment unsuitable for support to quit and acknowledged: "I am afraid to be hospitalized there again, no one listens to you, most of them are criminals, I am afraid to ask to quit in such place." Due to concerns about the high cost of hospitalization in the camp, some people in this study resorted to arbitrary treatment of substance use disorder at home and, as a result, could not stop using drugs. For example, interviewee 2 admitted: "I tried several times at home to quit, but I did not go to the doctor. I stopped smoking for a few days, but I did not last and came back. Now I am afraid to try. It may repeat this story." The study found that exposure to substance use in family and friends is challenging for many women. "Everyone in the house uses the substance, from the youngest to the oldest. Using the substance is normal, like eating food. I'm afraid to quit and come back home to be tempted," said participant 17.

Problems During Pregnancy

Problems during pregnancy emerged as one of the main categories, and four subcategories, including "safe lost pregnancy," "damaged physical and mental health," "threatened fetal health," "damaged physical and mental health," and "damaged sexual relations" were emerged from this category.

1. Safe Lost Pregnancy

Safe lost pregnancy was extracted from one of the subcategories. In this study, women faced several problems, such as emotional and psychological problems, physical pain,

unwanted pregnancy, physiological changes in pregnancy, and subsequent problems. "When I used substance, I was not in real-world for several hours; I did not know when I got pregnant, I did not want a child, nor did my husband," said participant 2 in the field of unwanted pregnancies. Several participants who had unwanted pregnancies underwent illegal abortions early in the pregnancy due to legal restrictions and lack of access to facilities but decided to continue the pregnancies due to unsuccessful abortions. For example, participant 12 stated: "Introducing one to me, she gave me some decoction medicines, but the fetus did not have an abortion, then I went to another place, they manipulated my uterus, I bled for a few days, but then it stopped, I had to hold the baby. "

2. Damaged Physical and Mental Health

Damaged physical and mental health arose from the category of problems during pregnancy. Substance use affects the mother's body and ability. These problems and the physiological changes of pregnancy are sometimes severe and put the mother's health at risk. "I have a liver problem, I've been drinking for a long time, I'm addicted to heroin and crack," said participant 12. In some cases, substance use provided conditions that led participants to social isolation and depression. Participant 13 described her depression problems as follows: "I have been using opium and heroin since I was 15 years old. After a while, I became depressed and did not go to my friends. I thought about suicide many times. I got much worse during my pregnancy." Another said: "I am no longer happy to live and be with my children and even to be pregnant now" (Participant 5).

3. Threatened Fetal and Neonatal Health

One of the extracted subclasses threatened fetal and neonatal health. Pregnancy in these women substance users had adverse consequences. Participant 14 stated: "The doctor who examined me said that the baby did not grow much, so he is in danger. You should give birth as soon as possible and have the baby. If I was not addicted, this would not have happened to me." Participant 4 also stated: " I had several miscarriages, my last baby was miscarried at six months, and I was bleeding from the beginning of my pregnancy."

5. Damaged Sexual Relations

Damaged sexual relations have emerged as a subcategory of this study. Several participants in the present study refused sexual relations because of low self-esteem due to physical changes following substance use. For example, participant 17 stated: "After I got addicted, I lost a lot of weight during pregnancy, my skin turned black, my teeth fell out, I do not think about sex with my husband, and I do not enjoy it, my husband does not come to me anymore, I give him the right with this situation because I no longer have an attraction for sex." Some of them felt ashamed of raising sexual issues. For example, participant 9 stated: "After I got pregnant, I had no desire for sex, but I was embarrassed to ask my doctor about these problems. I was afraid he would think badly or make fun of me." Behavioral problems became one of the main problems during pregnancy. Some interviewees did not have proper access to syringes, condoms, and diet due to financial constraints, and some resorted to prostitution to make a living. Participant 3 stated: " "I had no choice. To fill my stomach, I had to make money from a place where I was forced into prostitution despite being pregnant."

Lost Human Rights

One of the leading emerging classes is lost human rights, which has three subcategories: "distrust of others," "lost health rights," and "violated rights of a woman."

1. Distrust of Others

Several participants suffered from the pressures of social humiliation, neglect, and disrespect from those around them. Participant 8 acknowledged the distrust of those around him: " When I went to my sister's house, all the six portions were toward me. She thought I wanted to steal her things and gold because I was addicted." On the other hand, some participants lost many life opportunities due to substance use disorder, including employment. Participant 9 stated: "I was working in a production company. After my employer discovered that I was addicted, she always controlled me. When something was lost, she first suspected me and questioned me."

2. Lost Health Rights

Several interviewees reported a lack of access to services due to long distances and inconvenient times, outbreaks of Covid-19 disease, overcrowded health centers, long queues, and difficulty queuing. Participant 5 stated: "I could not perform regular pregnancy control because it is only in the morning, and I sleep until noon." Another aspect of lost human rights in this study was the abuse of sexual rights during pregnancy. Participant 12 described sexual violence as follows: "Once, a butler asked me for sex to give substance, but I did not know that he had told other two persons to come. I was tortured a lot, but I did not have the right to speak because he had given free drug (heroin)."

3. **Violated rights of a woman**

Another subcategory extracted in this study was the violated rights of a woman in various areas of life. "I did not want this baby at all, but my husband's family forced me to get pregnant, thinking I would quit when I got pregnant," said participant 10, who had no choice but to become pregnant. Most participants complained about the lack of access to training due to a lack of proper information resources. Participant 10 acknowledged: "Television does not teach the right and useful things. At least the programs that are broadcast on television must be useful."

6. Discussion

This was the first study in Iran to show that pregnant women with substance use disorder in a religious country with specific cultures and norms have diverse needs and concerns. The key findings of the present qualitative study were that pregnant women with substance use disorder have special needs and concerns. The findings yielded four key issues: the need for comprehensive support, the challenge of fear and concern, the problems during pregnancy, and the lost human rights that each formed the subcategories. The present study results significantly add to the current literature that participants' perceptions and perspectives include a wide range of needs and concerns during pregnancy in terms of access to health, economic, emotional, psychological, and sexual services, and the views of health care staff. The results of this study were compared and discussed with other studies as follows: The present study showed that pregnant women with substance use disorder face many needs and challenges. One of these participants' most important critical needs was the financial need for sufficient income and having a home for themselves and their children. Some raised the need to reduce medical expenses and have insurance and financial support during childbirth. Other studies have shown that women with substance use disorder have more essential needs than quitting substances (house, food, transportation, financial issues) (39, 40).

Contrary to popular belief, all the concerns of substance-user pregnant women are not financial problems, but the fear of others' gaze and the judgment of others can be the biggest pain and suffering in this group of women. One study showed that health staff' negative attitudes toward people with substance use disorder have a negative effect (41). One study among people who use injecting substances found that if they experienced inappropriate behavior in not receiving services from health staff, they were seven times more likely to avoid HIV testing (42). Discrimination against mothers was also a frequent component in the conversations of the interviewees in this study. It was manifested in different areas of their lives and the conversations of most participants on various topics. Women who used the substance in this study faced numerous limitations that prevented them from receiving information about reproductive health and problems related to substance use, and this issue worsened their reproductive health problems. Some of the participants had wrong views and beliefs about reproductive health. The need for training and change of beliefs and counseling in these areas was indirectly reflected in their speeches. In line with the results of this study, Barbosa-Leiker et al. (2020) showed that some women used cannabis for therapeutic purposes, such as controlling appetite, stress, nausea, and vomiting during pregnancy (43). Most of the participants had insufficient or incorrect information about the symptoms and ways of transferring sexually transmitted diseases. In the study of Rahimi Moghar et al. (1390), substance-used women had limited information about the transfer of sexually transmitted infections such as AIDS and hepatitis (44). Some participants admitted to having unplanned pregnancies and subsequent problems due to substance use, financial constraints, lack of access to family planning services, and restrictions on using family planning services. Substance use disorder leads to an increase in unwanted pregnancies (45). Psychological pain and emotional erosion also arose in pregnancy problems. In the speech analysis of some participants, problems such as feeling useless in society, low self-confidence, a sense of annoyance to others, symptoms of depression, and discouragement. Some studies have shown that substance use is associated with guilt and shame if accompanied by social pressure, leading to increased substance use to deal with stress (46). Several participants turned to prostitution to obtain the necessities of life and substance. In one study, the history of committing prostitution was more than 60 percent, and wrongdoing to provide the cost of substance was more than 90 percent (44). According to the present study, pregnant substance-using women suffered from sexual violence by their husbands, sexual partners, and sometimes substance dealers. In line with the present results, Taplin et al. (2019) concluded that the experience of domestic violence, rape, and physical abuse is common among individuals in this group that negatively affects their lives (47). Many participants lacked the power to choose, comment, and participate in family and community affairs. One study also showed that lack of control and low self-confidence negatively affect control behaviors (48). According to several participants, in this regard, educational interventions changing the view and culture of patriarchy and empowering pregnant women who use substances can be effective. According to sampling from different socio-economic levels, ages, and education, the results of this study can be generalized to a large number of pregnant substance-using women in Iran. This study had several limitations, including; the unwillingness of pregnant women with substance use disorder to participate in the research and access to them. The researcher tried to explain the research objectives and observe ethical principles to gain more trust, confidence, and coordination with the supervisors and officials of behavioral counseling centers to try to involve them as much as possible in the study. Another limitation of the study was the shame of talking about sexual issues and the possibility of non-expression of reality by participants. Therefore, the researcher tried to explain the importance of research, establish friendly relations with participants, spend enough time in the field, and observe ethical principles to gain participants' confidence and overcome this limitation. Health

systems that are not designed to meet the needs of these people, from the queue management system to receiving free and need-based services at the right time and place and the behavior of health care staff, there was a need to modify the design and process. There were not enough studies in Iran about the legal aspects of substance-used women's reproductive health during pregnancy. The results of this study showed the violation of these individuals' rights in various socio-cultural, economic, educational, health, sexual, maternal, and citizenship rights that the need for education and information, and cooperation between organizations and policy review is felt in this area.

Conclusion

Failure to pay attention to the needs of pregnant women with substance use disorder and gender-related factors has led to an increase in serious harm to their pregnancies and fetuses. Many of these concerns have been overlooked in government planning, requiring extensive research into their future reproductive health. The need for public education and changing the views of people in the community, especially health workers, and the cooperation of various organizations in collecting and identifying concerns and worries and planning to meet the needs of this group will be beneficial. The number of pregnant women with substance abuse disorder is increasing, and no basic organization supports this group of women. Many of the needs and concerns of this group remain unmet. The data of this study can be used to improve the health of this group of women to help health policymakers and planners prioritize the needs of pregnant women with substance use disorder by organizing some programs.

Figures and Tables

Table No. 1 Demographic and Midwifery Profile

Etical consideration

obtaining permission from the *Joint Organizational Ethics Committee of the School of Nursing and Midwifery and Rehabilitation* with the number *IR.TUMS.FNM.REC.1399.134* on 1399/08/20 and obtaining a written referral letter from *Tehran University of Medical Sciences* was performed.

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Conflict of interest statement

No conflict of interest is declared.

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Type of substances consumed	Duration of substance use disorder	number of children	Number of pregnancies	age of pregnancy	Economic situation	Employment status	education	age
Crack, heroin, glass	7-6 years	2	3	12W	Medium	Housekeeper	Fifth elementary	21
glass	2-2/5 years	1	2	39W	Medium	Waiter	Diploma	26
Cannabis, glass	3/5 years	1	3	38W	high	company's employee	Associate Degree	32

Type of substances consumed	Duration of substance use disorder	number of children	Number of pregnancies	age of pregnancy	Economic situation	Employment status	education	age
First opium, then cocaine	4 years	3	4	35W	Down	Housekeeper	The second year of middle school	20
Heroin	5 years	2	7	14W	Down	hair stylist	guidance	28
Crack, Bang	7 years	3	5	W 35	Down	Housekeeper	High school	27
Marijuana, cocaine	5 years	1	2	20W	Medium	Housekeeper	The third year of middle school	28
Opium	10 years	5	6	13W	Down	Housekeeper	Fifth elementary	31
Tramadol, crack, grass	9 years	1	2	37W	Medium	Housekeeper	Associate Degree	27
Tamjizak, Heroin, Cocaine	13-12 years	1	4	14W	Down	Housekeeper	High school	30
Opium, Heroin	8 years	1	2	39W	Down	Housekeeper	Primary	35
Heroin, Crack	years 5	3	5	17W	Down	Housekeeper	Primary	25
Hashish	3 years	0	1	26W	Down	Housekeeper	guidance	15
Crystal, alcohol	3 years	0	2	34W	Medium	Housekeeper	Primary	31
Heroin ، glass	3 years	0	4	20W	Medium	Housekeeper	High school	20
First opium, then cocaine	7 years	3	5	31W	Down	Housekeeper	guidance	35

Type of substances consumed	Duration of substance use disorder	number of children	Number of pregnancies	age of pregnancy	Economic situation	Employment status	education	age
Cannabis, cocaine	7 years	0	2	40W	Down	Housekeeper	High school	26
Cannabis	6 years	0	2	36W	Medium	First, hair stylist	Primary	20

Table 2 identifies the main and subcategories extracted from qualitative interviews

subcategories	main categories
Need for social and economic support Need for health support Need for access to training	**Need for Comprehensive Support**
Fear of Failure to Play the Role of a Woman concern about negative labels Fear of Failure to Quit	**Challenge of Concern and Fear**
safe lost pregnancy Damaged physical and mental health Threatened Fetal and Neonatal Health Damaged Sexual Relations	**Problems During Pregnancy**
Distrust of others Lost health rights Violated rights of a woman	**Lost Human Rights**

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