

Spontaneous Abortion and Psychological Experience About 125 Cases were Collected at the Gynecology and Obstetrics Department of the Philippe Maguilene Senghor Health Center in Yoff/Dakar, Senegal

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Abstract:- Spontaneous abortion or early termination of a pregnancy is a very frequent gynecological-obstetrical accident, affecting 12-24% of pregnancies. But despite this frequency, it appears that spontaneous abortion is not a trivial event for the women who experience it. It poses psychosocial problems for the woman, the couple, and the family, especially in Africa where the child occupies a predominant place. This study aimed to evaluate spontaneous abortion and its psychological repercussions in a population of women who had undergone a spontaneous abortion and were followed up at the Philippe Maguilène Senghor Health Centre in Yoff, Dakar. The study was qualitative and cross-sectional, with a descriptive and analytical aim. It involved 125 women who had spontaneous abortions and covered eight months from May 2012 to December 2012. The data were collected in the gynecology and obstetrics department of the Philippe. Maguilène Senghor Health Centre in Yoff, Dakar, where comprehensive emergency obstetric and neonatal care has become a reality since January 2012. The results showed a young population, and the most represented age group was 25-29 years. These young women were predominantly Muslim (88.8%), married (86%), and monogamous (56.8%). Non-professionals were the most represented with a rate of 47.2%. Students represented only 10%. The dominant reason for consultation was metrorrhagia with 64.8% of cases. Almost all abortions were early (less than 15 weeks gestation) (92%). Intrauterine manual aspiration was the most used therapeutic method in 98.4% of cases. These

young women had expressed several feelings after their abortions. The most common feelings were anxiety (73.6%), anger (53.6%), guilt (48.8%), and sadness (40.0%). This study shows that spontaneous abortion seems to generate psychological suffering for the women who are confronted with it. This suffering varies greatly from one woman to another. For some, it will be the loss of a pregnancy and for others the loss of a child. Reducing the pain of this loss sometimes requires more than recognition of the suffering by those around them. Consideration of women's suffering and the provision of support would help them to cope better with this event and to identify those with intense symptoms so that they can be directed towards appropriate follow-up.

Keywords:- Abortion, Experience, Psychological, Social, Senegal.

I. INTRODUCTION

Commonly referred to as miscarriage, spontaneous abortion is defined by the World Health Organization (WHO) as the expulsion from the maternal body of an embryo or fetus weighing less than 500 grams [1], which corresponds to about 20-22 weeks of gestation. Spontaneous abortion is a relatively frequent, but never harmless, event. If we look at obstetrical accidents at random, we see that a very large number of women have had spontaneous abortions in their history [2]. In Senegal, aborted pregnancies represent on average 50% of the reasons for emergency admissions in the reference maternity

units and spontaneous abortion remains high with a rate of 14% of abortions [3]. According to Balayira [4], spontaneous abortions concern 12% of pregnancies.

Despite this frequency, spontaneous abortion does not appear to be a trivial event for the women who experience it. Spontaneous and repeated, abortion poses psychosocial problems for the woman, the couple, and the family, especially in Africa, where the child occupies an important place [5]. Regardless of the age of the pregnancy, spontaneous abortion represents the loss of a future baby and all the plans it had [6]. Following a spontaneous abortion, almost half of all women will experience significant psychological distress [7].

Moreover, the loss of pregnancy occurs on several levels. It is both real, with the loss of the embryo or fetus, and symbolic, as it threatens the fulfillment of the desire for a child and the social status of the mother [8]. Several authors consider spontaneous abortion as a perinatal loss [9]. They have observed different phases of grief that follow one another. Maker and Ogden [10] reported that women who experience spontaneous abortion initially go through a phase of agitation at the shock of the news. This is followed by a period of adaptation during which they use different strategies to cope with the event before reaching a stage of resolution. Each woman reacts differently to a spontaneous abortion depending on her personality, personal, marital, and family history, living conditions, and the context of the pregnancy. Although those around her often tend to minimize the event, spontaneous abortion can cause her to suffer.

Several aspects of abortion have been studied, but research on the psychological experiences of women who have experienced spontaneous abortion is only a small part of the literature on abortion. Indeed, the sensitive or even taboo nature of the issue means that few researchers have studied it. This is undoubtedly one of the factors explaining the quantitative insufficiency of the available literature on the psychological experience of abortion. Furthermore, in Africa, the little information, or studies available on this issue are partial, insufficiently popularized, and very difficult to access for reproductive and mental health researchers and policymakers.

Given the psychosocial problems posed by spontaneous abortion, we felt it was important to look at women's short-term feelings following this obstetrical accident. In this context, this study aims to evaluate spontaneous abortion and its psychological repercussions among one hundred and twenty-five (125) clients of the obstetric gynecology department of the Philippe Maguilène Senghor Health Centre in Yoff, Dakar, where comprehensive emergency obstetric and neonatal care (SONUC) has been a reality since January 2012.

II. MATERIALS AND METHODS

A. Setting of the Study

Our study was conducted in the gynecological and Obstetrical Department of the Philippe Maguilène Senghor Health Centre, which belongs to the Yoff Health District. The service is under the supervision of the Gynecological and

Obstetrics Clinic of the University Hospital Center (UHC) Aristide le Dantec. It trains specialist doctors within the Framework of the Diplôme d'Etudes Spéciales (D.E.S) d'Obstétrique et de Gynécologie Médico-chirurgicale. The gynecological and Obstetrical Department of the Philippe Maguilène Senghor Health Center also provides supervision for fifth and seventh-year medical students during their training period. It also provides training for competent teams in emergency obstetric and neonatal care (EmONC). The Philippe Maguilène Senghor health center was inaugurated on 7 June 1984 and is named after the late son of President Léopold Sedar Senghor. It is the reference center for the west district of Dakar and has the vocation of a public health structure. It is a type II health center, i.e., providing comprehensive emergency obstetric care. At the time of our study, the Philippe Maguilène Senghor health center was operating with a staff of about 135 and a capacity of 70 beds. In addition to the gynecological and obstetric services, it includes medical services for cardiology, pediatrics, dermatology, and internal medicine. It also has a biology and biochemistry diagnostic service. The staff assigned to the maternity ward and the operating theatre consisted of four obstetrician-gynecologists assisted by medical interns, 16 midwives including a state midwife, an anesthetist-resuscitator, and two senior anesthetist-resuscitators, nurses and nursing assistants, stretcher-bearers, and instrumentalists.

B. Type and Period of Study

This was a qualitative, descriptive, and analytical study lasting 8 months from May 2012 to December 2012 inclusive. The study was based on the prospective collection of data through a structured interview with women treated in the gynecological and obstetric service of the Philippe Maguilène Senghor health center in Yoff, Dakar.

C. Study Population and Eligibility Criteria

The study covered one hundred and twenty-five (125) clients admitted to the gynecological and Obstetric Department of the Philippe Maguilène Senghor Health Centre in Yoff, Dakar, for spontaneous abortion. We conducted an exhaustive census of client files related to spontaneous abortion in the Gynecology and Obstetrics Department of the said center during the study period. All women over 16 years of age whose medical records included a telephone number were included. All women who refused to take part in the survey after being informed about the study were excluded from the study.

D. Data Collection and Study Variables

After screening the files that met the inclusion criteria, we made telephone calls to all the selected clients to inform them of the study and to arrange an appointment at the center for an interview. The study was based on the conduct and analysis of semi-structured interviews using a face-to-face interview guide. For data collection, we used a previously prepared individual form on which the information collected from each woman was recorded. In addition, hospitalization records, consultation registers, delivery room registers, and manual intrauterine vacuum aspiration (MIVA) protocols were also used for data collection. The data collection was done by us.

E. Statistical Analysis

Data entry was manual, using the computerized tool. For each variable, the data collected was coded to preserve the anonymity of the patients by ethical rules. The data collected was entered and analyzed by the Epi info software version 7.1.3.10. Thus, according to their quantitative and qualitative aspects, the results are presented in tabular and graphical form, analyzed, commented on, and discussed according to the literature. The tables and graphs were produced using EXCEL software version 2007. Anonymity and confidentiality were respected throughout the data collection process. The protocol was approved by the director of the institution.

F. Ethical Considerations

The favorable opinion of all women who participated in the study was obtained. The interviews were conducted with complete discretion in an isolated office in the department.

Medical professional secrecy was respected. The results of the present study are used only in a scientific context.

III. RESULTS*A. Sociodemographic data*

Table 1 provides an overview of the socio-demographic characteristics of the study population. The average age of the women was 29.5 years with extremes ranging from 16 to 43 years. The age group 25-29 years was the most represented with a rate of 31.2%. Almost all the patients were Muslim, 88.8% of the cases, and almost half of them had no professional activity (47.2%). Most of our study population was married (86.4%) and monogamy was the dominant marital regime with 56.8% of cases. More than half of the women (52.8%) lived in suburban areas.

Variables	Workforce (n)	Percentage (%)
Age groups		
[16-20 years [	13	10.4
[20-25 years [	24	19.2
[25-30 years [	39	31.2
[30-35 years [	25	20.0
[35-40 years [	20	16.0
[40 years and over]	4	3.2
Professional activities		
Without activities	59	47.2
Students	12	9.6
Housewives	34	27.2
Employees	20	16.0
Religion		
Muslim women	111	88.8
Christian	14	11.2
Marital status		
Singles	15	12
Brides	108	86.4
Divorced	2	1.6
Matrimonial regime		
Monogamous	71	56.8
Polygamous	54	43.2
Place of residence		
Rural	20	16.0
Suburban	66	52.8
Urban	39	31.2

Table 1:- Sociodemographic characteristics of the study population (n=125).

B. Background data

Table 2 above shows the distribution of women according to different histories.

Variables	Workforce (n)	Percentage (%)
Background		
Medical	37	29.6
Surgical	5	4
Psychiatric	13	10.4
None	70	56
gesture		
predigested	55	44
Paucigeste	23	18.4
Multi-gesture	30	24
Great multi-gesture	17	13.6
Parity		
Nulliparous	53	42.4
Primiparous	34	27.2
Multipara	32	25.6
Grand multiparous	6	4.8
History of spontaneous abortions		
Yes	30	24
Nope	95	76
Number of spontaneous abortions		
None	82	65.6
One	32	25.6
Two	8	6.4
Three	3	2.4

Table 2:- Distribution of women according to different antecedents (n=125).

More than half of the women (56%) had no pathological history. However, 29.6% of the women had a medical history, and 10.4% had a psychiatric history. In terms of gestational age, primigravida and multifetal were the most represented, with 44% and 24% of women respectively. Nulliparous women (42.4%) and primiparous women (27.2) were more represented in our study population. Less than 1/4 of the women (24%) had a history of spontaneous abortion and among 125 women in our sample, 25.6% of the cases had a single abortion and only 2.4% had three abortion episodes in their history.

C. Clinical data

Regarding the clinical data, the dominant reason for consultation was metrorrhagia with a rate of 64.8% (Figure 1). Early abortions (less than 15 weeks of amenorrhea) were the most frequent with 92% of cases (115 women). We found that most women (82%) knew their pregnancy status. Only 18% did not know they were pregnant. The announcement of abortion was made in 67 women by a midwife, 36.8% by a doctor, and 9.6% by another health worker.

Almost one-third (1/3) of the women did not know the cause of their spontaneous abortion (32.8% of cases). For the rest of the sample, two reasons emerged most often: labor (24% of cases) and divine will (17.6% of cases) as shown in Table 3.

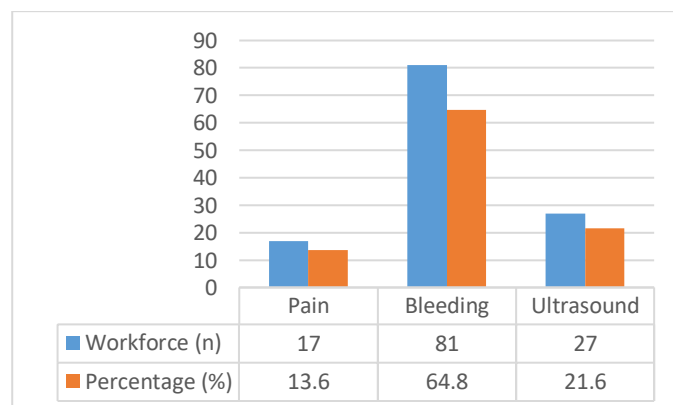


Fig 1:- Distribution of women according to reasons for consultation.

Cause of your abortion ?	Workforce (n)	Frequency (%)
I do not know!	41	32.8
Divine will	22	17.6
Mystical	12	9.6
Work	30	24
Medications	10	8
Others	10	8

Table 3:- Distribution of the different reasons for abortion mentioned by women

D. Therapeutic data

Instrumental treatment was the most used therapeutic method and, manual intrauterine vacuum aspiration (MVA) was the therapeutic method used in 123 women (98.4%). When asked whether the treatment was painful or not, 107 women (85.6%) admitted that the treatment was painful. We noted that the women surveyed had a low rate of explanation of the abortion (70.4%) or its treatment by the health care staff. Most women (61.6%) reported that they had not received any information about the treatment modalities or data related to the occurrence of the abortion (Table 4).

Explanations given		Abortion		Treatment	
		Workforce	Percentage	Workforce	Percentage
		(n)	(%)	(n)	(%)
Yes	Yes	37	29.6	48	38.4
	No	88	70.4	77	61.6

Table 4:- Explanations or not about abortion and its treatment.

E. Psychological aspects of the spontaneous abortion experience

The women's perceived feelings at one-week postabortion were anxiety in 92 women (73.6%), 67 women (53.6%) experienced anger, guilt was present in 61 women (48.8%), and 50 women (40.0%) experienced sadness (Figure 2).

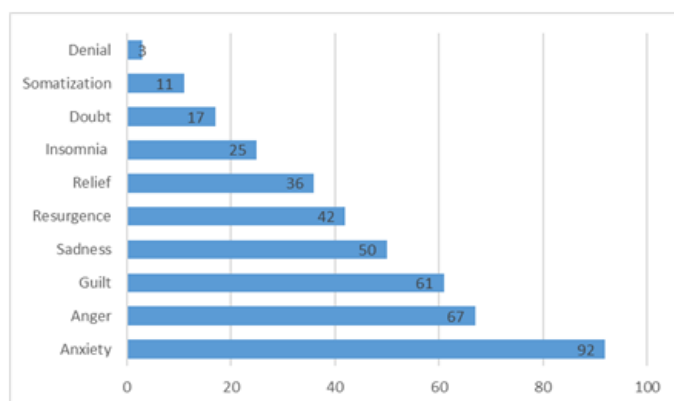


Fig 2:- The different feelings perceived by postabortion women.

Most of the women in the study (54.4% of the cases) had talked about abortion with their spouses, while only 45.6% (57 cases) in our series had talked about it with their relatives. In terms of support, almost two-thirds (2/3) of the women, or 60.8% of the cases, reported having been supported. However, no support was perceived by 49 women, i.e., 39.2% of cases. For those women who had sought support, midwives were the most frequent target with 53.9% of cases (Table 5). 65% of the women thought that the support would have been beneficial compared to 44% who thought that it would have no effect.

Seeking information about abortions was effective for only 28.8% of women. When asked whether they had shared their experience with other women who had had an abortion, we found that only 9 women (7.2%) had shared their experience with other women who had had a spontaneous abortion.

Who did you seek support from	Number (n=76)	Frequency (%)
Association	1	1.3
Doctor	29	38.2
Midwife	41	53.9
Psychologist/Psychiatrist	5	6.6

Table 5:- Distribution of women by support seeking (n=76).

IV. DISCUSSION

A. Sociodemographic aspects

The youngest woman in our series was 16 years old and the oldest was 43 years old. The average age was 29.5 years, and the age group 25-29 years was the most affected with 31.2% of cases. The extreme age groups, 16-19 years, and 40 years and over, were the least represented. Most of the cases were young women (60.8%) under 30 years of age. Our results are like those found by Balayira [4] in his series where 46.6% of the women were between 20 and 29 years of age. Makoko [11] found in her series that 40% of her sample were between 21-25 years of age. These results are like those of Cisse et al [3] who found a rate of 55% of women under the age of 30. For these authors spontaneous abortion occurs at a younger age. However, in the lexicon of reproductive medicine published in June 2000 [12], we found that 53.2% of spontaneous abortions occurred after the age of 44. We can therefore deduce that spontaneous abortion occurs at any age of a woman's genital activity.

Most of the women in our study population were married, accounting for 86% of cases. Single women represented only 12% of the sample. There were only two divorced women in our series. Our results are comparable to those of Halbachar [13] who found 78.52% of married women in his series. However, Diallo et al [14] reported 83.6% single versus 16.4% married in induced abortions. Monogamy was the dominant regime in our series with 58% of cases. The same finding was found in an African study [2].

Nearly half of our women were without a profession, i.e., 47.2% of the cases, and we counted 27.2% of housewives. Pupils and students accounted for 9.6% of cases. This could be explained by the fact that the primary function of women in Africa is to look after their homes and children. Our results are comparable to those of Loïc [15] who found that 53.49% of patients were without professions in 1997. On the other hand, in the study by Diallo et al [14], pupils/students were found to be in first place with 38.5% of cases.

Among the 125 women in our study, more than half (52.8%) lived in suburban areas, 31% in urban areas and only 16% of cases lived in rural areas. This can be explained by the fact that the target population of our study is in the suburban area of Dakar. It is also a population grouped around a village sharing the same religious convergence and predominantly Muslim, i.e., 88.8% of cases.

B. Clinical aspects

In our study, 29.6% of the women had a medical history, of which hypertension was the most common at 15%. Surgical history represented only 4% of the cases. Our results differ from those of Diallo et al [14] who found in their series, that 12% of pathological medical history and 8% of pathological surgical history. In terms of gynecological history, 24% of women had experienced spontaneous abortion. And in terms of the number of spontaneous abortions, 25.6% of the women had had one abortion. These findings are within the range of results generally found in the African literature. Cisse et al [3] noted a rate of 25.3% in their study of first-trimester abortions in Dakar, while Balayira [4] reported a rate of 62.4% in her study. Spontaneous abortion is a condition whose risk increases when the patient has a previous history of abortion. Nulliparous women were the most represented in our study with 42% of the cases. The average parity was two with extremes of 0 and 8. Our results are like those of Cisse et al [3] and Mokoko [11] who found that spontaneous abortion was more frequent in nulliparous women with respective rates of 83.9% and 80%. About the psychiatric history of the women in our study, 13 (10.4%) had a psychiatric history (anxiety disorders, mood disorders, hysterical conversions...). Psychiatric history seems to lead to a high risk of developing intense psychiatric morbidity in women who have experienced spontaneous abortion. Neugebauer et al [16] showed that after spontaneous abortion, 54% of women with a history of depression relapsed.

During the study period, the dominant reason for consultation was metrorrhagia with a rate of 64.8%. Abdominal-pelvic pain accounted for 13.6% and incidental discovery of spontaneous abortion during routine antenatal visits by ultrasound accounted for 21.6% of cases. Our results are consistent with those of several studies on the same topic [11, 13]. According to gestational age, spontaneous abortion was early in 92% of cases (<15 weeks of amenorrhea). This means that the incidence of abortion seems to be related to gestational age. Our results are comparable to those in the literature. Cisse et al [3] described a frequency of 50.2% of abortions with a gestational age between 5 and 9 weeks of amenorrhea. It should be noted that in our series, most patients knew their pregnancy status, i.e., 82% of cases. This finding could be explained by the improvement in awareness of early prenatal consultations but also by the improvement in access to obstetrical ultrasound.

For half of the women in our study, the announcement of the abortion was made by the midwives in 53.6% of cases. Announcements by doctors accounted for only 36.8% of cases. This difference between medical personnel in the announcement of the abortion could be explained by the fact that midwives first receive the women, prepare them, draw up

their medical files, and then hand them over to the doctors who complete the management. Despite medical advances, the mystery of conception still eludes us. Beliefs and superstitions persist. The reasons for abortion mentioned by women were many and varied. As in the case of several authors [6, 17], the causes most frequently mentioned in our study were related to fatigue at work, divine will, psychological stress, mystical reasons, and medication.

C. Therapeutic aspects

Manual intrauterine vacuum aspiration (MVA) has been the most widely used therapeutic method of uterine evacuation (98.4%). It is now the method of choice in early post-abortion care. It is an effective and safe method; complications related to the procedure are rarely reported in the literature, including hemorrhage, uterine perforation, and cervical trauma [18, 19]. It also reduces the length of hospitalization to only a few hours and the health costs. Our results are consistent with the literature [3, 13]. Despite the effectiveness of MVA, in our study, several women (86%) reported that this method of uterine evacuation was painful, even though it was performed under local anesthesia. Even if this does not call into question the medical act that it represents, could this maneuver not be experienced by patients as a psychological trauma?

Regarding information on abortion and its treatment, 70.4% of the women questioned said they had not received any explanation from the medical staff. The same finding is reported in the literature [6, 17]. This lack of clear medical information reinforces patients' feelings of guilt and may lead to psychological suffering as they try to make up their minds.

D. Psychological experience of spontaneous abortion

➤ The different feelings of patients after abortion

The psychological consequences of abortion have been widely studied around the world. Although some authors believe that spontaneous abortion is overcome without great difficulty, some women experience various personal feelings through the spontaneous abortion experience [20-22]. In our series, women reported many feelings ranging from relief to guilt.

- The feeling of relief was found in 36 patients or 28.8% of cases. In the study by Garel et al [20], 31% of women reported this feeling of relief. This is a feeling that is assessed differently by women. There is a relief to have a diagnosis, to know what happened, why she was bleeding and what it was for. Because the women have doubts about whether it was a spontaneous abortion. This feeling also arises afterward, once the medical treatment is over. There is also another relief for women: the thinking that "*maybe it's better this way*". If the pregnancy had been carried to term, it would not have been a good one. This could be explained by the simple fact that these women did not want this pregnancy, which seems to be unwanted and unplanned. So, the reaction after the spontaneous abortion is a relief at being out of an unwanted situation.

- Feelings of sadness and grief were reported by 50 women or 40%. Our results are like the data found in the studies by Sejourne, Callahan & Chabrol in 2008 [6] and by Lok & Neugebauer in 2006 [23]. This feeling of sadness is partly explained by nostalgia for the lost child, the desire to talk about the loss and the search for an explanation. In a study published in the British of Medical Psychology in 2000 [24], a 5-item questionnaire of 39 women found that 67% of women were very sad initially, 21% were sad and 13% were sad but relieved.
- The feeling of anger was expressed by 53.6% of the women in our series. The anger was generally directed at close relatives such as partners or in-laws. In the interviews, we found that the women felt that this was unfair to other women and that they were angry with them, even though they were aware that they had nothing to do with it. According to the study by Garel et al [20], 33% of the women had feelings of revolt and spoke of injustice.
- The feeling of doubt was also found in 13.6% of the women. This feeling developed by these women is most often related to their ability to procreate. Garel et al [20] reported that two out of three women had their capacity as mothers questioned following spontaneous abortion. The question was thus raised as to whether, in the context of spontaneous abortion, a feeling of doubt could have consequences for the project, the course, and the experience of the next pregnancy.
- The feeling of failure was found in 64.8% (81 women). The loss of the pregnancy, in addition to the physical and moral suffering, is experienced as a failure by most women. They blame themselves for their failure. They ask themselves many questions about access to motherhood and their ability to be mothers. This feeling of failure undermines femininity and motherhood, as shown in the study by Garel et al [20]. According to this study, two out of three women questioned their ability to be a mother in the days following the miscarriage.
- Guilt and responsibility were identified in 48.8% of the women in our study. This rate is within the range of results generally found in the literature. Stirtzinger et al [25] found that slightly more than 40% of women experienced guilt after spontaneous abortion. Garel et al [20] noted that 56% of women felt guilty after spontaneous abortion, blaming their work or lack of rest. Although the etiology is not known, this common feeling is very strong and is often shared by these women. Perhaps it is the lack of answers that leads women to question and feel guilty? Women feel guilty about themselves and feel a certain responsibility for what they have done or failed to do. This sense of responsibility for the loss is very strong. Although the women are aware that this feeling is unfounded, it is still present, as if it is necessary to find fault and responsibility. This guilt is sometimes felt by spouses and sometimes even turned towards others.

All these feelings following a spontaneous abortion that we have described are found in the literature. Indeed, the various authors show that the feelings experienced by women after a spontaneous abortion are very varied. The review by Sejourne et al [17] summarizes all the studies, describing grief, dysphoria, fear, injustice, guilt, shame, emotional shock, trauma, and devastation as the most representative feelings of women. Almost half of the women show significant psychological distress [26].

➤ Support

Almost two-thirds (61%) of the women were supported and most of them thought that support had a beneficial effect on overcoming this event. Most emphasized the need for their partner and family to be present and to help them through the event. However, only a minority of the women made use of health personnel. This finding has been found in several studies on the same theme. Our enlightened vision, through this suffering of women, shows us the importance of support and leads us to ask questions about the care that could be given to these patients to help them integrate this event. The studies carried out on this subject are not always conclusive as to their real effectiveness. Several studies demonstrate the importance of early management. Sejourne et al [17] conducted a study on the effectiveness of a brief supportive intervention on anxiety, depression, and stress after miscarriage. A comparison between two groups of women was made: an early interview at two weeks, or an interview at three months. The results showed that three weeks after their miscarriage, about 30% of the women (all groups) wanted to support, and 86% of the women who had had this interview had found it useful (20% of them found it insufficient). The comparison shows that this early intervention is beneficial for women who have experienced this event. Other studies [27-28] have shown the importance of early psychological care for women after abortion.

V. CONCLUSION

Spontaneous abortion is a very frequent gynecological-obstetrical accident throughout the world, but it is more particular in the African context, and Senegal in particular, because of the place that the child occupies in a couple. In the course of this work, we have noticed a high prevalence of spontaneous abortions. In addition to this frequency, it seems to generate psychological suffering for the women who are confronted with it. This suffering is very different from one woman to another. For some, it will be the loss of a pregnancy and for others the loss of a child. Reducing the pain of this loss sometimes requires more than the recognition of the suffering by those around her. Despite the support of the spouse and family, which was mentioned by the women, the medical teams play a crucial role in providing help and support. Consideration of women's suffering and the provision of support would help them to cope better with this event and to identify those with intense symptoms so that they can be directed towards appropriate follow-up.

It is very important to raise awareness among doctors, obstetricians, and midwives of the need to include the psychological aspect in post-abortion consultations. Programs for prevention, screening, and/or management of psychological complications of spontaneous abortion should be included in the service package offered to patients at risk.

➤ **Conflicts of interest:** The authors declare that they have no conflicts of interest.

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REFERENCES

- [1]. Garcia-Enguidanos A, Calle M.E, Valero J, Luma S, Dominguer-RV. Risk factors in miscarriage: a review. *Eur J Obstetric Gynecol Reprod Biol*, 2002; 102: 111-9.
- [2]. Keita N.A. Prise en charge des avortements spontanés au centre de santé de référence de la commune V du district de Bamako à propos de 156 cas. Thèse de doctorat d'état en médecine, BAMAKO, Mars 2008, 20-39.
- [3]. Cisse C.T, Faye K.G, Moreau J.C. Avortements du premier trimestre au CHU de Dakar : Intérêt de l'Aspiration Manuelle Intra-utérine. *Med. Trop.* 2007 ; 67 : 163-166.
- [4]. Balayira M. Etude descriptive à propos de 150 cas d'avortement spontané colligés à l'hôpital GT BAMAKO, Thèse de doctorat d'état en médecine, Mars 1991, p96.
- [5]. Antoine S, Ngbale R, Sanza M.C, Domande-Modanga Z, Nguembi E. Analyse des avortements à la maternité de l'hôpital communautaire de BANGUI. *Med. Trop.* 2004 ; 64 : 61-65.
- [6]. Sejourne ND, Callahan, S Chabrol H. L'impact psychologique de la fausse couche : Revue des travaux. *Journal de Gynécologie obstétrique et Biologie de la Reproduction*, 2008 ; 37 : 435-440.
- [7]. Athey J, Spielvogel A.M. Risk factors and interventions for psychological sequelae in women after miscarriage. *Prim Care Update Ob/Gyns* 2000 ; 7(2) : 64-9.
- [8]. Garel M, Legrand H. L'attente et la perte du bébé à naître. Albin Michel; Paris, 2005.
- [9]. Wallerstedt C, Higgins P. Facilitating perinatal grieving between the mother and the father. *J Obstetric Gynecol Neonatal Nurs* 1996; 25: 389-94.
- [10]. Maker C, Ogden J. The miscarriage experience: more than just a trigger to psychology morbidity? *Psychol Health*, 2003 ; 18(3) : 403-15.
- [11]. Mokoko G. Les avortements spontanés, Aspects socio psychologiques. Thèse Méd. Dakar, 1985.
- [12]. Lexique de la médecine de la reproduction. *BMJ* 2000 Jun 24 ; 320 (7251) : 1708-12.
- [13]. Halbachar H. Hémorragie du premier trimestre. *CSRef CVI* 2005-2006.
- [14]. Diallo FSD, Diabate S, Traore M, Diakite S, Perrotin F., Dembélé F. et al. Complications des avortements provoqués illégaux à Bamako (Mali) de décembre 1997 à novembre 1998. *Cahiers d'études et de recherches francophones / Santé*. 2000 ;10(4) :243-7.
- [15]. Loïc P. Les Avortements spontanés du 1er trimestre de grossesse : Evacuation chirurgicale ou traitement médical ? *La Lettre du Gynécologue*-n°286-novembre 2003.
- [16]. Neugebauer R.; Kline J.; Shrout P.; Skodol A.; O'Connor P.; Geller P.A. et al. Major depressive disorder in the 6 months after miscarriage. *JAMA* 1997 ; 277 (5) : 338-83.
- [17]. Sejourne ND, Callahan S, Chabrol H. L'efficacité d'une brève intervention de soutien sur l'anxiété, la dépression, et le stress après une fausse couche. *Journal de Gynécologie Obstétrique et Biologie de la Reproduction*. Septembre 2011 ; 40(5) : 437-443.
- [18]. Beucher G, Beuillat T, Dreyfus M. Prise en charge des fausses couches spontanées du premier trimestre. *J Gynecol Obstet Biol Reprod* 2003 ; 32 : 5-21.
- [19]. Poncheville, L.D., Marret, H., Perrotin, F., Lansac, J., & Body, G. Les avortements spontanés du 1er trimestre de grossesse : l'aspiration utérine est-elle toujours de mise ? *Gynécologie Obstétrique & Fertilité*. 2002 ; 30, 799-806.
- [20]. Garel M, Blondel B, Lelong N, Bonenfant S, Kaminski M. Réactions dépressives après une fausse couche. *Contracept Fertil Sex*. 1992 ; 20 (1) : 75-81.
- [21]. Gueye M. Les psychoses puerpérales en milieu sénégalais à propos de 92 observations. Thèse de doctorat d'état en médecine. Dakar, 1976. 188.
- [22]. Gueye M., Thiam M.H., Sylla A. Troubles psychopathologiques de la gravido-puerpéralité. *Psychopathologie Africaine*. Dakar 2007-2008. 34, 1 : 51-84.
- [23]. Lok IH, Neugebauer R. Psychological morbidity following the miscarriage. *Best Practice & Research Clinical Obstetrics & Gynaecology*. Avril 2007; 21(2): 229-247.
- [24]. Conway K, Russell G. Couple's grief and experience of support in the aftermath of miscarriage. *British Journal of Medical Psychology*. 2000; 73(4): 531-545.
- [25]. Stirtzinger RM, Robinson GE, Stewart DE. Parameters of grieving in spontaneous abortion. In *J Psychiatry Med*. 1999; 29 (2): 235-49.
- [26]. Athey J, Spielvogel A.M. Risk factors and interventions for psychological sequelae in women after miscarriage. *Prim Care Update Ob/Gyns* 2000; 7(2): 64-9.
- [27]. Lee C, Slade P, Lygo V. The influence of psychological debriefing on emotional adaptation in women following early miscarriage: A preliminary study. *British Journal of Medical Psychology*. 1996; 69(1): 47-58.
- [28]. Swanson, Kristen M. Effects of Caring, Measurement, and Time on Miscarriage Impact and women's well-Being. *Nursing Research*. 1999; 48(6), 288-298.