Effect of Supportive Care Therapy for Women with Recurrent Miscarriage on Their Anxiety Level and Early Pregnancy Outcome

Areej G. Al-Otaibi[1] Sahar A. Aly[2*] and Ahlam A. Al-Ghamdi[3]

[1]Obstetrics and Gynecologic Nursing Department, Faculty of Nursing, Dammam University, KSA
[2] Obstetrics & Gynecologic Nursing Department, Faculty of Nursing, Minia University, Egypt
[3] Obstetrics and Gynecology Department, Faculty of Medicine, Dammam University, KSA,
[*]saharshamandy@yahoo.com

Abstract: **Background:** Recurrent miscarriage (RM) is a difficult clinical problem occurring in 1-2% of fertile women and has been defined as three or more consecutive spontaneous losses, usually in the first trimester of pregnancy. The etiology of RM consists of genetic, anatomic, endocrinologic, advanced maternal age and unexplained cause; however 40% fail to reveal an identifiable cause therefore classified as idiopathic or unexplained recurrent miscarriage. In addition, women with history of miscarriage usually suffer more from pregnancy related anxieties during next pregnancy. Currently, supportive care therapy is the only therapy that can be offered to women with unexplained RM or when no cause is found and may reduce miscarriage rates. This study was done to determine the effect of supportive care therapy for women with RM on their anxiety level and early pregnancy outcome. **Design:** A quasi experimental research design was used. **Setting:** the study was conducted at the Recurrent Pregnancy Loss Clinic & the Obstetrics and Gynecologic Ultrasound Department in King Fahd Hospital of the University (KFHU) in Al-Khobar, KSA. **Methodology:** All Pregnant women with unexplained RM who met the inclusion criteria were included over a period of three months with a total number of 17 women. Two tools were used to achieve the aim of the study, first tool: An interview questionnaire was designed and used by the researcher to collect the necessary data related to socio-demographic characteristics and obstetrical history. Second tool: An assessment tool was used by the researcher to assess women's knowledge related to RM and supportive care therapy, Hamilton Anxiety Rating Scale to assess the women's level of anxiety before and after supportive care therapy and ultrasound assessment form to assess their fetal viability and measuring the crown rump length (CRL). **Results:** The findings of the present study revealed statistical significant reduction in the women's anxiety level after the provision of supportive care therapy. 88 % of women had successful early pregnancy outcome compared to 12% of women who had miscarried. **Conclusion:** Supportive care therapy is effective in the management of unexplained recurrent miscarriage and promote early pregnancy outcome. Hence, this study recommends early supportive care therapy during the next pregnancy for all women with unexplained RM.

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Key Words: Miscarriage, Unexplained RM, Supportive Care and Anxiety level, Supportive Care and Early Pregnancy Outcome.

1. Introduction

Many pregnancies end in the first trimester as a result of miscarriage, which is the commonest complication in early pregnancy. Miscarriage is any pregnancy that ends spontaneously before the fetus can survive; it is medically referred to a spontaneous abortion. Broadly, this is expulsion of the fetus before viability. The World Health Organization defines this un-survivable state as an embryo or fetus weighing 500 grams or less, which typically corresponds to a fetal age of 20 to 22 weeks or less [1, 2]. Studies revealed that anywhere from 10 – 25% of all clinically recognized pregnancies will end in miscarriage; furthermore woman who had a previous miscarriage has a 25% chance of having another miscarriage [3-5].

Recurrent miscarriage (RM) is traditionally defined as three or more consecutive losses occurring before 20 weeks post-menstruation, however the etiology of recurrent miscarriage consists of genetic, anatomic, endocrinologic, advanced maternal age and unexplained or no known cause [6]. Unexplained recurrent miscarriage is the most common diagnosis and account for approximately 40 percent of cases; moreover it remains a frustrating problem for the clinician and distressing condition for the affected couple, therefore, a miscarriage seems to increase the risk for anxiety disorder [7, 4]. Evidence–based management of recurrent miscarriages requires investigations into the underlying etiology when a specific cause is identified, directed treatment may reduce miscarriage rates. Generally, in unexplained recurrent miscarriages, or when no cause is found, supportive care may reduce miscarriage rates [6]. Supportive care is currently the only therapy that can

be offered to women with unexplained recurrent miscarriage and defined as the treatment given to prevent, control or relieve complications and side effects to improve the patients comfort and quality of life. Moreover, several studies have found that even without specific treatments, supportive care in early pregnancy may actually reduce the risk of miscarriages [8].

In addition, the preferred supportive care therapy is specific to antenatal counseling; close weekly supervision by ultrasound scan at a dedicated early pregnancy clinic until the 12th gestational week, Beta Human Chorionic Gonadotrophin monitoring (BHCG), practical advice concerning life style, diet and formal emotional support in the form of counseling [6, 9]. On the other hand, women with unexplained recurrent miscarriage are more likely to have a successful pregnancy in the next time if they have supportive care at a specialist unit. This includes being able to have regular scans or to talk to the specialist staff about beliefs and fears, and then appropriate advice and reassurance should be given [10].

Moreover, recurrent miscarriage is often a traumatic event for both partners, and both descriptive and empirical studies have reported that depression, anxiety, grief, helplessness, self-blame and anger are some of women's typical responses to early loss of pregnancy [11]. Finally, as anxiety is a common response during pregnancy for women who have experienced recurrent miscarriage because they fear that another pregnancy loss might occur, previous studies indicated that supportive care therapy may reduce miscarriage rates and the associated anxiety and so it is offered to women with unexplained recurrent miscarriage [6, 12]. Therefore, a multidisciplinary approach to miscarriage evaluation is essential to understand the cause and risk of recurrence. So, a thorough evaluation of a miscarriage in combination with emotional support can often provide the necessary reassurance and confidence for the woman in her next pregnancy [13, 14].

Hypothesis:

1. Provided supportive care therapy for women with unexplained RM during first trimester of pregnancy reduce their anxiety level.
2. Provided supportive care therapy for women with unexplained RM during first trimester of pregnancy promote their successful early pregnancy outcome.

Aim of the study:

The aim of this study was to determine the effect of supportive care therapy for women with recurrent miscarriage on their anxiety level and early pregnancy outcome.

Operational definition:

Early pregnancy outcome mean that women with unexplained recurrent first trimester miscarriages had ended with successful early pregnancy outcome or had miscarried after provided supportive care therapy.

Ethical Consideration:

After approval of the ethics committee of King Fahd Hospital of the University (KFHU) in Al-Khobar, KSA, an official permission was obtained from the responsible authorities in the Obstetrics and Gynecologic Department at King Fahd Hospital. The significance and purpose of the study was explained to them. The women approvals to participate in the study sample were obtained and the confidentiality of the study was ensured to them.

2. Material and Method:

Research Design:

A quasi experimental research design was carried out in this study.

Setting:

The study was conducted at the Recurrent Pregnancy Loss Clinic & the Obstetrics and Gynecologic Ultrasound Department in King Fahd Hospital of the University (KFHU) at Al-Khobar, KSA. This hospital was chosen as it is the only hospital provides close weekly supervision by ultrasound scan until the 12th gestational week, and monitoring beta human chorionic gonadotrophin for women with unexplained recurrent miscarriage at AL-Khobar.

Study Sample:

A total sample of seventeen women with a history of unexplained recurrent miscarriage who attended the previously mentioned setting was recruited and comprised the study subjects. Women were selected according to the following criteria:

Inclusion Criteria:

Women with a history of unexplained recurrent first trimester miscarriages (after three or more consecutive miscarriage), and gestational age≤9 weeks

Exclusion Criteria:

Women with late miscarriage (after 12 completed weeks of gestation), women with an identifiable miscarriage cause, such as: anatomical anomalies of the uterus or cervix, endometrial infections, hormonal dysfunctions and chromosomal abnormalities, antiphospholipid syndrome, congenital thrombophilia and cervical incompetence, and women who had other medical disorders such as diabetes or hypertension.

Tools of data collection:

Two tools were used to achieve the aim of the study

Tool I:

An interview questionnaire was designed and used by the researcher to collect the necessary data related to socio-demographic characteristics (women

and husband age, occupation, educational level… etc.) and obstetrical history (gravidity, parity, number of previous abortion, and gestational age).

Tool II:

Assessment tool was used by the researcher to assess the following:

Part 1: Women knowledge related to the effect of supportive care therapy on their early pregnancy outcome (pre and post-test).

Part 2: Women level of anxiety by use Hamilton Anxiety Rating Scale (before and after supportive care therapy given) [15].

Part 3: Fetal viability and measuring the crown rump length (CRL) by use ultrasound assessment form to assess early pregnancy outcome [16].

Method:

The interviews were performed with all women (n=17) who attended the recurrent pregnancy loss clinic in the KFUH with a history of unexplained recurrent miscarriage over the period from the first of March 2012 to the end of May 2012. All women were interviewed every Tuesday at the recurrent pregnancy loss clinic in KFHU and every Saturday, Monday and Wednesday in the obstetrics and gynecologic ultrasound department at the same hospital to follow up the women until 12 weeks of pregnancy (for two time follow-up after initial assessment). The tools of data collection were developed and used by the researcher after reviewing the related literature. A pilot study was carried out on 3 women to ascertain the applicability, feasibility and clarity of the tool content, and then the necessary modifications were made; women in the pilot study were excluded from the total sample. The present study was carried out through the following visits:

Initial visit:

After the diagnostic work up for unexplained recurrent miscarriage had been performed**,** the researcher explained the purpose of the study to every woman, and then takes her consent to participate in the study. Baseline maternal data with regards to, socio-demographic characteristics, and obstetrical history were taken by the researcher (used tool I). The researcher filled the interviewing questionnaire individually and assured that confidentiality was maintained. Furthermore, **a pre-test** assessment tool included five questions used by the researcher (tool II- part 1) to assess the women's knowledge related to the effect of supportive care therapy on early pregnancy outcome. Each question was scored and coded as **zero** if the answer was false, and **one** if the answer was true. Moreover, the total score of women's knowledge for the 5 answers was multiplied by 100 and divided by 5 to get the total knowledge percentage score and then divided into 5 categories as weak = less than 50, fair = 50-64, good = 65-74, very good = 75-84, and excellent knowledge score = 85 or more. Moreover, the researcher assessed the women's anxiety level **before receiving supportive care therapy** by using the Hamilton Anxiety Rating Scale (tool II- part 2) to quantify the severity of anxiety. It consists of 14 items each item is scored on a likert scale of 0 to 4, with a total score range of 0 – 56. The total anxiety score were calculated and categories as < 15 = mild, 15 -<29 = moderate, 29 -< 43 = severe, and 43 – 56 = very severe. Ultrasound scan was performed for all women by the obstetrician to assess the fetal heart rate (FHR) and measuring the crown rump length (CRL) until the 12th gestational week to reassure the woman about the fetal viability and early pregnancy outcome, and then documented in the ultrasound assessment form (tool II- part 3), which created by the Ministry of Higher Education, University of Dammam, King Fahad Hospital of the University.

Finally, Supportive care therapy was frequently offered by the researcher to each woman for a duration ranging from 50-60 minute. Contents of supportive care therapy given were includes advices related to lifestyle and diet, her emotional needs, relaxation technique, recommended exercises during early pregnancy, medications, warning signs, and follow-up schedule. These contents divided into three sessions, each session take about 15-20 minute. **At the first session**: Each woman received from the researcher advices concerning lifestyle and diet, gives the woman feeling that they are listened to and understood, enquire how the woman is doing and what are her emotional needs, and received advices about relaxation technique by using audio visual materials (lap top). **At the second session**: Woman received advices related to recommended exercises during early pregnancy to feel better during a time when the body is changing and basic guidelines to avoid exercises to the point of exhaustion or breathlessness. Finally, **at the third session**: Woman received advices regarding to medications, warning signs to be reported immediately, and follow-up schedule to make a plan for the first 12 weeks with the gynecologist, receive frequent ultrasound in early pregnancy to assess fetal viability, and BHCG blood monitoring to assess the early pregnancy outcome.

Second visit (1st follow-up):

The women were followed two weeks after the initial visit and the obstetrician performed ultrasound scan and reassured them about the fetal viability and early pregnancy outcome. After that supportive care therapy was given by the researcher to each woman as prescribed in the first visit.

Third visit (2nd follow-up):

The women were followed four weeks after the initial visit and the researcher re-assessed the women's knowledge regarding supportive care therapy

by using tool II- part 1**(post- test)** and comparison was made between the score of pre and post-test knowledge by using Statistical Package for the Social Sciences (SPSS). Moreover, the researcher re-assessed the women's anxiety level **after receiving supportive care therapy** by using the Hamilton Anxiety Rating Scale (tool II- part 2) to quantify the severity of anxiety. Finally, the women were reassured by the ultrasound results about the fetal viability and early pregnancy outcome by the obstetrician.

The statistical analysis was performed using Statistical Package for the Social Sciences (SPSS) Version 15. Number and percentage were used for presenting the qualitative variables and Fisher Exact Test (FET) was used. Tests of normality were carried out for the quantitative variables with a P value of ≤0.05 considered to be significant. The median and inter quartile range was used for mathematical presentation and non-parametric tests (Mann-Whitney test (M-WT) and Wilcoxon test) were used for analysis.

3. Results:

The Demographic characteristics of all 17 women were illustrated in **Table 1.** It illustrated that women's age ranged from 26 to 41 year with a median age of 36 year. Meanwhile, the husband's age ranged from 28 to 54 years with a median age of 40 year. It was observed that more than half (58.8%) of women had secondary certificates, while 29.4% had higher education & the rest (11.8%) had intermediate certificates. Three quarters (76.5%) of women were housewives, while the remaining (23.5%) were employed. The majorities (82.4%) were nuclear family type; versus 17.6% of the women were extended family type.

Concerning the obstetrical characteristics, **Figure 1**: Illustrated that more than two thirds of women (70.60%) were gravida 9 or less, but not surprisingly more than one quarter (29.4%) were gravida10 and more with Mean ± SD (7.9± 2.8), this figure also shows that more than one third of women (35.3%) were mutiparaous, however only 17.6% were nulli- paraous women with Mean ± SD (2.3± 2.2). As shown in **Figure 2.** More than half (59%) of women had 3-4 miscarriages and less than one quarter (12%) had7 and more previous miscarriages.

The distribution of the women according to improvement of total knowledge score are presented in **Table 2.** Where about more than three quarters (76.5%) of the women had weak score in the pre-test knowledge compared to nobody in the post test. Only 17% reported very good score in the pretest, compared to 66.7% in the post test, however one third (33.3%) of them had excellent score in the post test knowledge compared to nobody in the pretest with statistically significant improvement in their total knowledge score (P=0.001).

Table 3: delineated that the highest level of anxiety according to Hamilton Anxiety Rating Scale among the women was detected in the anxious mood with a median (IQR) of 3.0 (0) in the pre-test compared to 2.0 (2) in the post-test with a statistically significant difference (*p. value*= 0.006). Also, a statistically significant difference was observed regarding to tension, difficulties in concentration and memory, depressed mood, general somatic symptoms (sensory), cardiovascular symptoms, gastro-intestinal symptoms, other autonomic symptoms, and behavior during interview with a median (IQR) of 2.0 (1), 2.0 (2), 1.0 (1), 2.0 (2), 1.0 (1), 2.0 (1), 1.0 (1), and 1.0 (1) respectively in the pre-test compared to 1.0 (0), 0.0 (1), 1.0 (1), 0.0 (2), 1.0 (2), 2.0 (1), 0.0 (1), and 1.0 (0) in the post-test respectively (*p. value*=0.006, 0.001, 0.002, 0.001, 0.015, and 0.003 respectively).A comparison between the women's level of anxiety according to the Hamilton anxiety score before and after supportive care therapy were presented in **Figure 3.** More than half (52.9%) of the women reported moderate anxiety, 35.3% had sever anxiety while the rest (11.8%) reported mild anxiety before supportive care therapy, however after supportive care therapy given the majority (93.3%) of the women categorized as mild anxiety and the remaining (6.7%) had moderate anxiety level. These differences are statistically significant as *P* = 0.001.

As regard early pregnancy outcome, **Figure 4.** illustrated that, the majority (88%) of women had successful pregnancy outcome after supportive care therapy while two women only (12%) had unfavorable pregnancy outcome and ended with miscarriage.

Table 1: Distribution of women according to their socio-demographic characteristics

Characteristics	N=17	
Women's age (years)		
Min –Max	26 – 41	
Md. (IQR)	36 (10)	
Husband age (years)		
Min –Max	28 – 54	
Md. (IQR)	40 (10)	
Women's education	**No.**	**%**
Intermediate school	2	11.8
Secondary school	10	58.8
High education	5	29.4
Women's occupation		
House wife	13	76.5
Employee	4	23.5
Family type		
Extended	3	17.6
Nuclear	14	82.4

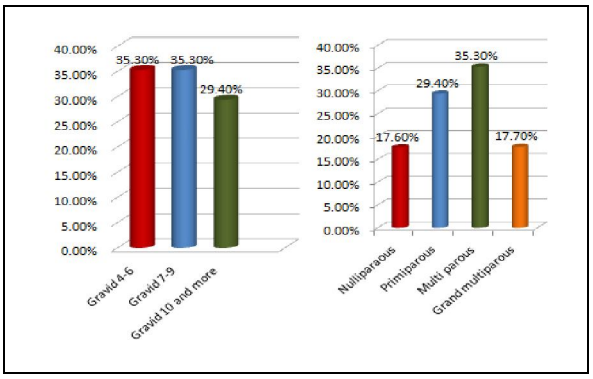

Figure 1: Distribution of women according to their number of gravidity and parity

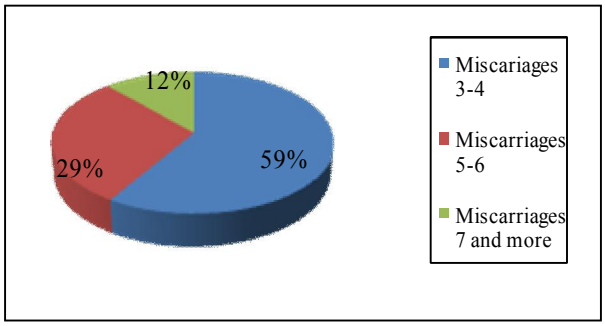

Figure2: Distribution of women according to their number of previous miscarriages

Table 2: Distribution of women according to their total knowledge score (pre and post-test)

Total knowledge score	Pre-test (N=17)		Post-test (N=15)		*P. value*
	No.	%	No.	%	
Weak	13	**76.5**	0	**0.0**	0.001*
Fair	1	5.9	0	0.0	
Very Good	3	17.6	10	66.7	
Excellent	0	**0.0**	5	**33.3**	

Table 3: Distribution of women according to their Hamilton Anxiety Rating Scale (before and after supportive care therapy)

Parameters	Before supportive care (N=17) Md. (IQR)	After supportive care (N=15) Md. (IQR)	Test of Significance (Z)	*P. value*
1-Anxious mood	***3.0 (0)***	2.0 (2)	2.762	**0.006***
2-Tension	2.0 (1)	1.0 (0)	3.276	**0.001***
3-Fears	2.0 (1)	1.0 (0)	1.508	0.132
4-Insomnia	1.0 (0)	1.0 (0)	1.414	0.157
5-Difficulties in concentration &memory	2.0 (2)	0.0 (1)	3.100	**0.002***
6- Depressed mood	1.0 (1)	1.0 (1)	3.464	**0.001***
7- General somatic symptoms (Muscular)	1.0 (2)	2.0 (1)	1.298	0.194
8- General somatic symptoms (Sensory)	2.0 (2)	0.0 (2)	2.428	**0.015***
9- Cardiovascular symptoms	1.0 (1)	1.0 (2)	3.000	**0.003***
10- Respiratory symptoms	1.0 (1)	1.0 (2)	1.396	0.163
11- Gastro-intestinal symptoms	2.0 (1)	2.0 (1)	2.179	**0.029***
12-Genito-Urinary symptoms	2.0 (2)	2.0 (3)	0.275	0.783
13- Other autonomic symptoms	1.0 (1)	0.0 (0)	3.017	**0.003***
14- Behavior during interview	1.0 (1)	1.0 (1)	2.530	**0.011***

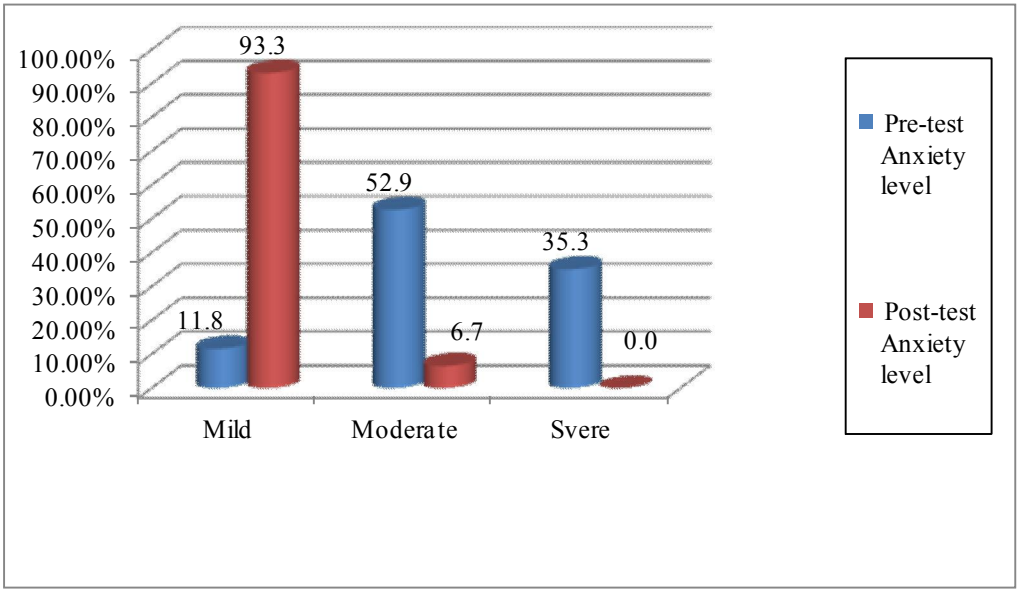

Figure 3: Distribution of women according to their anxiety level score (before and after supportive care therapy)

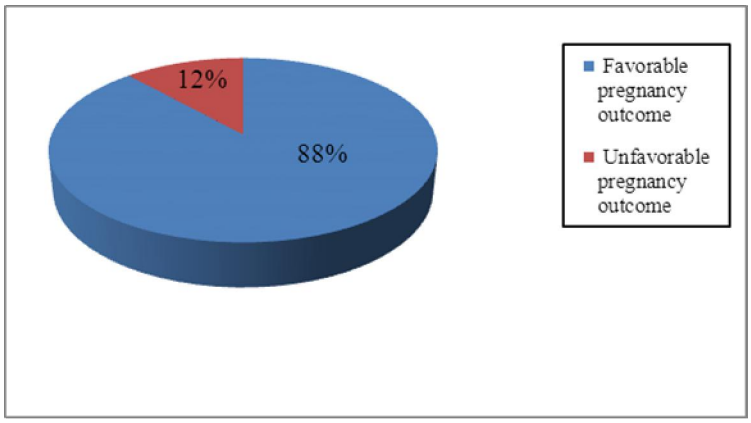

Figure 4: Distribution of women according to their early pregnancy outcome

4. Discussion:

Recurrent miscarriage is the loss of three or more consecutive pregnancies that affects 3% of all couples trying to conceive, 50 % are diagnosed as couples with unexplained recurrent miscarriage. However, it remains a frustrating problem for the clinician and distressing condition for the affected couple [2]. Supportive care is currently the only therapy that can be offered to women with unexplained recurrent miscarriage (RM), as anxiety is a common response during pregnancy because they fear that another pregnancy loss might occur, thus feeling of support and care are very important for these women and may help them to decrease anxiety [9].

Among the factors that may affect pregnancy outcome in the first trimester are demographic characteristics of the women and obstetrical history. Women's age is one of the factors that might affect early pregnancy outcome as the results of the present study indicated that risk of miscarriage was higher if the median women's age were 36 year and ranged from 26 – 41 year old **(Table 1)**. Finding is in nearly agreement with this reported by **Musters *et al.*** [9] in their explorative, semi-structure, in-depth interviews study about supportive care therapy for women with unexplained recurrent miscarriage, they found that the median age of the women was 32 year (ranging from 26 – 49 year old). Moreover, this finding was in line with **Clifford et *al.*** [7] in their prospective study about future pregnancy outcome in unexplained recurrent first trimester miscarriage, who emphasized that the women median age was 34 year with a range of 22 – 43 years.

Furthermore, the present study shows that the risk of miscarriage also increases with husband median age of 42.5 year **(Table 1)**.These findings were in line with that found by **Rochebrochard & Thonneaue** [17] in their retrospective population based study about paternal age and maternal age, they found that the risk of miscarriage was higher if the woman was aged ≥ 35 years and a husband aged ≥ 40 year. In this respect, **Kleinhaus *et al.*** [18] reported an increase in miscarriage with paternal age older than 35 year. Concerning women's education , occupation and family type **(Table 1)**, the present study indicated that more than half (58.8%) of women have secondary school certificate, while more than three quarter (76.5% , 82.4%) of them were housewives and nuclear family type respectively. However, these findings might reflects that the risks of recurrent miscarriage more commonly reported among women with middle level of education and those house wives with nuclear family type.

As regards obstetrical history **(Figure 1)**, almost two thirds of the studied women (70.6%) have increased number of gravidity (4 – 9), while number of parity was ranged from 0 – 8, which implies that the risks of RM is higher and commonly reported among those women with increased gravidity and decreased parity. In addition, the findings of the present study revealed that number of previous first trimester miscarriage was ranged from 3 to 7 miscarriages and the risk of miscarriage was high if the women had 3 to 4 previous miscarriages **(Figure 2)**. This finding is with agreement with that found by **Liddell *et al.*** [10] who highlighted that the average number of miscarriages was 4. On the same line, **Musters *et al.*** [9] also reported that the median number of preceding miscarriages per woman was 3 and ranging from 2 to 7 miscarriages. This demonstrates the negative effect of an increasing number of previous miscarriages on future pregnancy outcome.

On dealing with data related to women's knowledge regarding supportive care therapy in both pre and post-test assessment, the results of the present study portrayed that slightly more than three quarters (76.5%) of the studied women had weak pre-test knowledge score compared to nobody in the post-test as shown in **table 2**. These results indicated that the majority of women in the pre-test assessment didn't know any information about the relation between miscarriage and each of stress and supportive care to promote early pregnancy outcome with statistically significant difference between the pre and post- test assessment. However, this finding could be related to that women are embarrassed to watch these programs that discuss recurrent miscarriage issues or there is no specific programs discussing the effect of supportive care therapy on promoting pregnancy outcome.

Anxiety is a common response during pregnancy for women who have experienced recurrent miscarriage because they fear that another pregnancy loss might occur as shown in this study **(Table 3).** It was found that the highest median of anxiety before supportive care were anxious mood, tension, fears, difficulties in concentration, general somatic symptoms , gastro - intestinal and genitor –urinary symptoms. This finding is with agreement with that found by **Kerstin *et al.*** [19] they report that women with prior miscarriage had higher levels of pregnancy related fear and state of anxiety during the first trimester. In this respect, also **Thapar & Thapar** [20] reported that women who had a previous miscarriage had a significantly higher score on hospital anxiety scale, and also in agreement with **Katherine Williams** [21] who reported that considering the degree of grief and sadness that come with miscarriage, it's not surprising that recurrent miscarriage is associated with higher rates of depression. In the same line **Eirini *et al.*** [12] found that women with a miscarriage history reported significantly higher pregnancy specific anxiety at first trimester.

In a comparison between the women's level of anxiety before and after supportive care therapy **(Figure 3)**, the findings of the present study illustrated that more than one third (35.3%) of women had severe anxiety score before given supportive care compared to nobody after supportive care therapy with statistically significant differences, which mean a positive change in the anxiety level score from the initial anxiety assessment and post four weeks anxiety assessment as related to supportive care therapy. This finding is in disagreement with **Thapar & Thapar** [20] who found that women who have had a miscarriage experience a significant degree of anxiety both at initial interview and at six weeks later.

Finally, as regards the early pregnancy out come after supportive care therapy **(Figure 4)**, the present study found that supportive care therapy in early pregnancy had a positive effect on pregnancy outcome in the first trimester and shows that 88% of pregnancies were successful compared to only 12% of women had miscarried. This finding is in nearly agreement with **Liddell *et al.*** [10] who found that 86% of pregnancies were successful after supportive care therapy; also this finding is in agreement with **Clifford *et al.*** [7] who reported that attendance for supportive care conferred a significant beneficial effect on the outcome of pregnancy. The result of the present study also confirms the findings of **Elizabeth Lamb** [22], whose results showed that by providing a reassuring and supportive environment, women can achieve a positive pregnancy outcome with the correct tools to decrease anxiety. Finally, the current study shows that women with unexplained first trimester

miscarriage have excellent early pregnancy outcome with offered supportive care therapy alone.

Conclusion:

In the light of the main study findings, it was concluded that supportive care therapy is the effective therapy for women with unexplained recurrent miscarriage as it reduces the anxiety level and promotes successful outcome in the next pregnancies and during first trimester in particular. Thus, this intervention seems to be safe, effective and of particular importance for those women with unknown cause for recurrent miscarriage, it is likely to have an important impact to get successful early pregnancy and could be implemented easily.

Recommendations:

Based on the findings of the present study, it is recommended that:

1) Provide supportive care therapy for the women with unexplained RM that help in promoting their early pregnancy outcome.
2) Providing women health education program to increase the women awareness about the importance of supportive care therapy.
3) Providing in-service staff education to increase the staff awareness about the importance of supportive care therapy among pregnant women with a history of unexplained recurrent miscarriage.
4) The primary health care team and hospital staff need to take into considerations the importance of follow up for women who have had a miscarriage**.**
5) Further studies should be carried out in other Recurrent Pregnancy Loss Clinic with a large number of women to be able to generalize the findings.

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Corresponding author:
Sahar Ahmed Aly Ahmed Al-Shamandy
Obstetrics & Gynecologic Nursing Department, Faculty of Nursing, Minia University, Egypt
saharshamandy@yahoo.com

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