


ORIGINAL ARTICLE

Quality of life and sexual function after a pregnancy complicated by placenta accreta spectrum

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Background and Aims: Little is known about the impact of Placenta Accreta Spectrum (PAS) on quality of life (QoL). This study aims to explore QoL and sexual function after a pregnancy complicated by PAS.

Methods: Women who experienced a pregnancy complicated by PAS were invited to complete an online survey. Two validated surveys were completed: Short Form 36 (SF-36) and Female Sexual Function Index (FSFI). The mean scores were calculated and were compared between women by pregnancy outcomes. Continuous variables were presented as mean (standard deviation (SD)) and were compared to assess for significance between groups using independent *t*-test and one-way analysis of variance. Categorical variables were compared using χ^2 test.

Results: A total of 142 women responded to the survey. For the SF-36, physical health was significantly higher for women at 24–36 months postpartum compared to those from 0–6 months postpartum for physical functioning (mean difference 21.9 (95% confidence interval (CI) 10.2, 33.5), role limitation due to physical function (mean difference 32.1 (95% CI 9.4, 54.7)) and pain (mean difference 15.5 (95% CI 3.4, 30.9)). For the mental health domains, only vitality improved at 24–36 months compared to the first six months postpartum (mean difference 12.8 (95% CI 0.2, 25.5)). The mean FSFI score was 24.8 (± 5.8), lower than the critical score of 26.5 indicating sexual dysfunction, and 56.8% ($n = 75$), scored less than 26.5.

Conclusion: Women after a pregnancy complicated by PAS had high scores on the physical health domains of SF-36. The mental health scores were lower for all women regardless of time since birth.

KEYWORDS

mental health, placenta accreta, placental diseases, quality of life, sexual health

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INTRODUCTION

Placenta accreta spectrum (PAS) describes a range of conditions characterised by a histopathological finding of an absence of decidua, and chorionic villi are observed directly adjacent to myometrial fibres.¹ The condition is associated with significant maternal morbidity and mortality.^{2–4} There has been a dramatic increase in the incidence of PAS, largely attributed to global increases in caesarean section rates,⁵ with data from the USA from hospital discharge diagnosis suggesting an incidence as high as 3.7 per 1000 women.⁶

The morbidity and mortality associated with PAS are well described. In addition to the acute morbidity including the risks of major haemorrhage, local organ damage and death, chronic physical and psychological complications develop. Furthermore, as many women require a hysterectomy, the acute nature of this irrevocable infertility can have a major impact on women as they recover from PAS. There is limited literature describing quality of life (QoL) after PAS. A number of small studies have previously reported that women with PAS have an increased risk of post-traumatic stress disorder⁷ and report more ongoing pain and anxiety⁸ compared to women who underwent caesarean birth for other reasons.

The aim of this study is to explore the longitudinal impact a pregnancy complicated by PAS has, and to determine the influence of pregnancy outcomes, on QoL and sexual dysfunction.

MATERIALS AND METHODS

Women with a history of a pregnancy complicated by PAS were invited to participate in a survey questionnaire. The inclusion criteria were pregnancy complicated by PAS, fluency in English and to provide informed consent and age over 18 years. Women who had previously agreed to be contacted for research involving PAS were invited to participate by email via two patient support groups, National Accreta Foundation, which is based in North America, and Placenta Accreta Ireland. Women who responded to the invite were sent a link to the survey, which was completed online. Consent was obtained as part of the survey. No patient identifiers were recorded; therefore, the data were anonymous. A reminder was sent after one and two weeks by support group leaders (K.T. and N.C.) to enhance participation. Participants completed the survey over a four-week period in March–April 2020.

Women completed two self-report surveys relating to general QoL and sexual function. Short-Form 36 (SF-36) was used to assess general QoL.⁹ SF-36 consists of eight health domains. Scores range from 0 to 100, with higher scores indicating better health.

Sexual function was assessed using the Female Sexual Function Index (FSFI).¹⁰ Six sexual function-related domains are assessed, namely desire, arousal, lubrication, satisfaction, orgasm and dyspareunia. Female sexual dysfunction (FSD) is defined as an overall score of less than 26.5.¹¹

The mean scores were calculated for each of the surveys' domains. Mean scores were compared between groups, which were defined as follows: (i) whether women had a hysterectomy; (ii) antenatal diagnosis; (iii) gestation at delivery (< or >34 weeks); (iv) emergency versus elective delivery; (v) time since delivery (<6, 6–12, 12–24, 24–36 months); and (iv) readmission within six weeks postpartum (readmission, bleeding, infection and return to theatre).

Statistical analysis was performed using SPSS version 24 (IBM, Armonk, NY, USA). The data were tested for normality using Shapiro–Wilk test and were found to be normally distributed. Categorical variables were compared using χ^2 test. Continuous variables were expressed as means (standard deviation). Independent *t*-test was used to find the mean difference and the 95% confidence interval (CI) between various groups. One-way analysis of variance was used to compare means where there were more than two groups, with post hoc analysis performed using Bonferroni correction.

Ethical approval was granted by the National Maternity Hospital ethics committee (EC30, January 2020). Women who consented to being contacted for research on becoming members of the included patient support groups were invited to partake. Informed consent was obtained from participants as part of the questionnaire.

RESULTS

In total, 320 women were contacted, of whom 142 responded to the survey (44% response rate). Patient demographics are presented in Table 1. The majority of respondents received care in North America (67.4%, $n = 95$) and were Caucasian (87.2%, $n = 123$). About 85% ($n = 120$) of women had not heard of PAS before their diagnosis. Pregnancy outcomes are presented in Table 2. Sixty per cent ($n = 84$) of women had an antenatal diagnosis, and 43.6% ($n = 62$) of women were delivered before 34 weeks completed gestation. Women with an antenatal diagnosis were more likely to have an elective delivery compared to women who were undiagnosed (odds ratio (OR) 2.9, 95% CI 1.4, 5.9) and to undergo hysterectomy (OR 10.7, 95% CI 4.1, 28.6). Women were more likely to need a blood transfusion if they had a hysterectomy (OR 3.1, 95% CI 1.3, 7.1) or had an emergency delivery (OR 0.5, 95% CI 0.2, 1.1).

A total of 137 women completed the SF-36 survey. Women had higher mean scores for physical health compared to the mental health domains (Fig. 1a). The highest mean score was for physical functioning at 84.7 (± 20.3), with the lowest score for the energy/fatigue (vitality) domain with a mean score of 39.5 (± 20.6). Figure 1b shows the change in SF-36 scores plotted by months since delivery. The scores in the physical health domains improved in the year after delivery and reached a stable plateau higher than those at three months postnatal. At 24–36 months postpartum, the mean scores for physical function were 21.9 (95% CI 10.2, 33.5) higher than those at less than six months postpartum, whereas the

TABLE 1 Demographics of participants

| Variable | n (%) |
|---|------------|
| Age (<i>n</i> = 141) | |
| 18–24 | 2 (1.4) |
| 25–34 | 52 (36.9) |
| 35–44 | 79 (56) |
| >45 | 8 (5.7) |
| Location (<i>n</i> = 141)† | |
| Europe | 32 (22.7) |
| North America | 95 (67.4) |
| South America | 4 (2.8) |
| Australia and New Zealand | 9 (6.4) |
| Africa | 1 (0.7) |
| Education (<i>n</i> = 141) | |
| Secondary | 19 (13.5) |
| University | 104 (73.8) |
| Master's/PhD | 18 (12.8) |
| Marital status (<i>n</i> = 141) | |
| Single | 5 (3.6) |
| Divorced or separated | 2 (1.4) |
| Married/partnered | 132 (94.3) |
| Widowed | 1 (0.7) |
| Time since PAS pregnancy (<i>n</i> = 141) | |
| <6 months | 31 (22) |
| 6 months to 1 year | 22 (15.6) |
| 1–2 years | 35 (24.8) |
| >2 years | 53 (37.6) |
| Number of previous caesarean births (<i>n</i> = 141) | |
| 0 | 47 (33.3) |
| 1 | 42 (29.8) |
| 2 | 22 (15.6) |
| 3 | 16 (11.3) |
| 4 | 8 (5.7) |
| 5 | 3 (2.1) |
| 6 and >6 | 3 (2.1) |

PAS, placenta accreta spectrum.

†Location is the region where women received care for pregnancy.

mean scores for role limitation due to physical function were 32.1 (95% CI 9.4, 54.7) higher than those at less than six months postpartum. For the mental health domains, only the mean change for vitality from less than six months postpartum compared to 24–36 months is statistically significant; however, the CI suggests the difference is unlikely to be clinically significant (mean difference 12.8, 95% CI 0.2, 25.5). Table 3 shows the SF-36 scores analysed by pregnancy outcomes. Women who had a hysterectomy had statistically higher mean scores for the vitality domain; however, the CI is close to one, and therefore, clinically the difference is unlikely to be significant (mean difference 9.1 (95% CI 0.8, 17.4)). Women who were readmitted with an infection within six weeks postnatal

TABLE 2 Pregnancy outcomes

| Variable | n (%) |
|---|------------|
| Gestation at delivery (completed weeks) (<i>n</i> = 136) | |
| <34 weeks | 62 (46) |
| >34 weeks | 74 (54) |
| Delivery type (<i>n</i> = 141) | |
| Elective | 90 (63.8) |
| Emergency | 51 (36.2) |
| Hysterectomy performed (<i>n</i> = 140) | |
| Yes | 108 (77.1) |
| No | 32 (22.9) |
| Blood transfusion (<i>n</i> = 141) | |
| Yes | 107 (75.9) |
| No | 34 (24.1) |
| Hospital readmission (<i>n</i> = 142) | |
| No | 103 (72.5) |
| Yes | 39 (27.5) |
| Indication for readmission† (<i>n</i> = 39, 27%) | |
| Bleeding | 10 |
| Infection | 15 |
| Return to operating theatre | 17 |
| Other | 14 |

†Seventeen women had more than one complication.

had lower general health scores compared to those who were not readmitted (mean difference 13.4 (95% CI 3.1, 23.7)).

A total of 132 women completed the FSFI survey. The mean FSFI score for all domains was 24.8 (\pm 5.8); 16 women (12.1%) reported they were not currently sexually active. Of the 116 (87.9%) women who were sexually active, 31 (23.5%) engaged in sexual activity less than once a month, 62 (47%) more than once a month and up to twice a week and 23 (17.4%) more than twice a week. About 56.8% (*n* = 75) of participants had a score less than 26.5, indicating sexual dysfunction. Sexual dysfunction was highest in the desire domain with a mean score of 3.9 (\pm 3) and lowest for lubrication with a mean score of 4.6 (\pm 1.1). FSFI scores were analysed by pregnancy outcomes, and there was no difference between mean scores between groups (Table S1).

DISCUSSION

This study found that for women who had a pregnancy complicated by PAS physical health is higher in the long term compared to the immediate postpartum period, whereas mental health lags behind and remains low many months after delivery. Mental and physical health scores were no different for any of the clinical scenarios analysed here, except for general health that was lower for women who had a postnatal readmission with an infection. Furthermore, we report for the first time the prevalence of sexual dysfunction in women who have experienced a

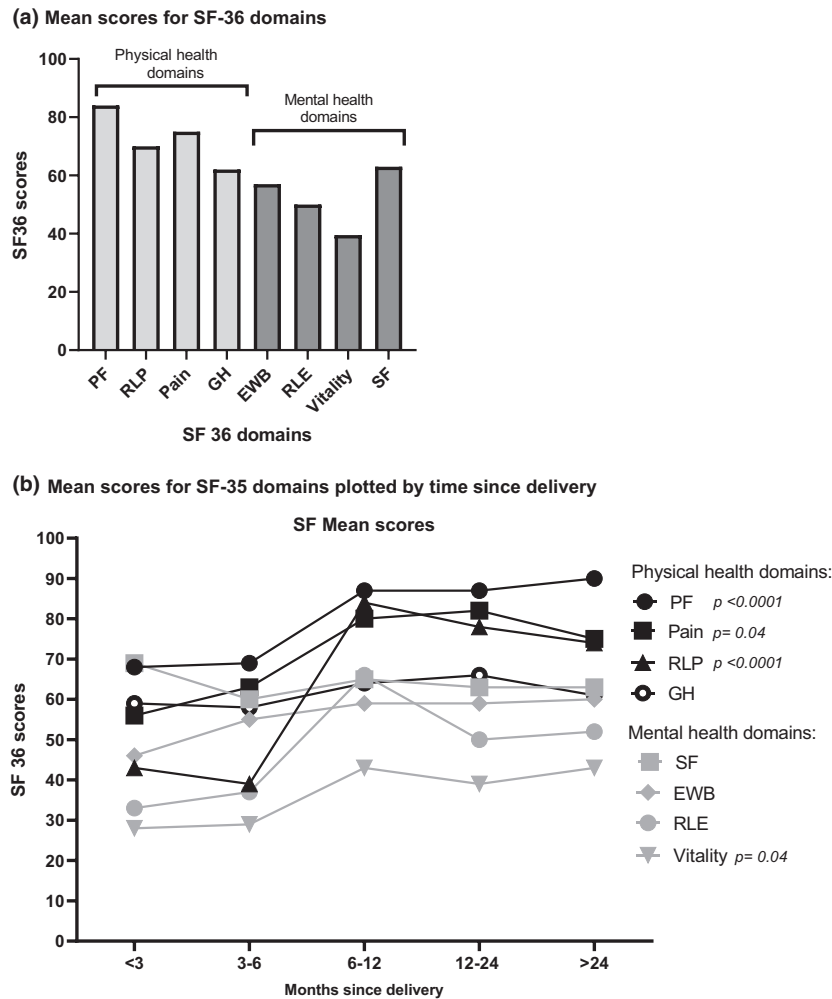


FIGURE 1 (a) Mean scores for Short Form 36 (SF-36) domains. (b) Mean scores for SF-36 domains plotted over time since delivery

pregnancy complicated by PAS. The rate of FSD of 56% reported here is similar to previous studies that have used the FSFI in the postpartum period.^{12,13}

Two studies have previously looked at QoL in women with PAS. One study of 69 women (17 with PAS)⁷ found that women with a diagnosis of PAS were significantly more likely to meet the criteria for probable post-traumatic stress disorder (PTSD) compared to those who had an uncomplicated caesarean birth (40% compared to <10%). However, there was no difference in the rates of PTSD in PAS women compared to those who underwent an emergency peripartum hysterectomy or who had a severe postpartum haemorrhage. These findings are similar to our study where women who anticipated a traumatic delivery had similar results to those with an unexpected traumatic birth. Keenan *et al.* used the SF-36 questionnaire for women with PAS ($n = 14$) compared to women with a complicated caesarean section (three or more caesarean sections or previa ($n = 38$)).⁸ Women with PAS experienced more pain and anxiety at six months postpartum, but there were no other significant differences between the other SF-36 domains, and by two years the differences between the groups had resolved. Comparing

the SF-36 results from our study to those of Keenan *et al.*,⁸ the mean scores reported in our study are lower across all domains, except for the pain domain (mean 75.4 in our study compared to 66.8), which may reflect the increased number of women in our study.

Our results of low physical and mental health in the first few months postpartum are a common finding in the postnatal period; however, mental health scores should improve overtime along with physical health.^{11,14} It is not possible to identify the underlying cause of persistent low mental scores in this study.

We did not find that women who were 'prepared' to have a hysterectomy or loss of fertility had better mental health compared to those for whom the diagnosis was unexpected. It is unclear how contributory the long-term impact of irrevocable, involuntary infertility as a result of peripartum hysterectomy is on long-term mental health.

This study has a number of strengths and limitations. PAS is a rare condition, and the sample size included here is large compared to previous QoL studies in PAS. This study is limited by the lack of a control group. However, given the unique nature of PAS, it is difficult to conclude what constitutes a suitable control group.

TABLE 3 SF-36 scores

| SF-36 domain (n = 136) | | | | | | | | | | |
|--|----------------------|----------------------------|-----------------------------|------------------|----------------------|--------------------|-------------------|-------------------|-------------------|--|
| Variable | Physical functioning | Role limitation – physical | Role limitation – emotional | Vitality | Emotional well-being | Social functioning | Pain | General health | Health change | |
| Total (n = 136) | 84.6 (20.3) | 70.4 (38.7) | 50.6 (44.1) | 39.5 (20.6) | 57.8 (20.5) | 63.8 (20.3) | 75.4 (25.6) | 62.5 (19.9) | 56.7 (28.5) | |
| Hysterectomy | | | | | | | | | | |
| Yes (n = 105) | 84.5 (21.3) | 71.9 (38) | 52.1 (44.8) | 41.4 (20.9) | 58.1 (21.2) | 64.6 (20.2) | 75.1 (26.4) | 63.5 (19.7) | 56.6 (28.6) | |
| No (n = 30) | 86.3 (15.6) | 64 (41) | 44.4 (42.2) | 32.3 (17.9) | 57.6 (17.1) | 62.1 (20.1) | 77 (23.2) | 58.6 (21.1) | 57.5 (28.7) | |
| Mean difference (95% CI) | 2.3 (-10.6, 5.9) | 7.7 (-8.2, 23.7) | 7.6 (-10.5, 25.7) | 9.1 (0.8, 17.4) | 0.5 (-7.8, 8.8) | 2.5 (-5.7, 10.8) | 1.8 (-12.3, 8.7) | 4.9 (-3.2, 13.1) | 0.8 (-12.5, 10.9) | |
| Antenatal diagnosis | | | | | | | | | | |
| Yes (n = 80) | 82.6 (22.2) | 67.2 (39.7) | 53.3 (45.5) | 39.6 (21.8) | 58 (20.2) | 65.1 (18.8) | 74.2 (25.3) | 62 (19.9) | 54.7 (30.3) | |
| No (n = 56) | 87.7 (17) | 74.6 (37.4) | 47 (42.5) | 39.6 (18.9) | 58.3 (20.6) | 62.7 (21.9) | 76.9 (26.3) | 63 (20.1) | 60.3 (25.6) | |
| Mean difference (95% CI) | 5.0 (-11.9, 1.9) | 7.3 (-20.7, 5.9) | -6.3 (-8.9, 21.6) | 0.1 (-7.2, 7.1) | 0.2 (-7.2, 6.8) | -2.4 (-4.5, 9.3) | 2.7 (-4.7, 9.6) | 1.0 (-7.9, 5.8) | 5.6 (-15.4, 4.2) | |
| Delivery | | | | | | | | | | |
| Elective (n = 87) | 83.9 (20.9) | 67.8 (36.9) | 51.3 (43.4) | 40.2 (19.1) | 57.9 (20.7) | 66.2 (18.1) | 74.7 (26.1) | 62.5 (19.6) | 54.6 (29.1) | |
| Emergency (n = 49) | 86.4 (19.1) | 74.4 (37.3) | 49.6 (46.2) | 38.6 (23.2) | 58.5 (19.8) | 60.4 (22.8) | 76.3 (25.1) | 62.2 (19.9) | 61.2 (27) | |
| Mean difference (95% CI) | 2.5 (-9.7, 4.6) | 6.6 (-20.3, 7.0) | -1.6 (-14.0, 17.3) | -1.6 (-5.6, 8.9) | 0.6 (-7.8, 6.6) | -5.7 (-1.2, 12.8) | 1.6 (-10.6, 7.5) | -0.3 (-6.7, 7.5) | 6.6 (-16.6, 3.4) | |
| Gestation at delivery | | | | | | | | | | |
| <34 weeks (n = 62) | 85.1 (20.7) | 68.9 (38.6) | 50.0 (45.9) | 40.6 (22.1) | 57.7 (19.8) | 62.9 (20.1) | 72.6 (27.3) | 63.5 (17.8) | 55.6 (29.8) | |
| >34 weeks (n = 74) | 84.5 (20.1) | 71.2 (39.2) | 51.3 (43.1) | 38.7 (19.4) | 58.4 (20.8) | 65.2 (20.2) | 77.7 (24.3) | 61.5 (21.7) | 58.2 (27.5) | |
| Mean difference (95% CI) | -0.4 (-6.4, 7.4) | 2.3 (-15.6, 10.9) | 1.3 (-16.4, 13.8) | -1.8 (-5.1, 8.9) | 0.7 (-7.6, 6.2) | 2.3 (-9.1, 4.5) | 5.1 (-13.8, 3.6) | -1.9 (-4.9, 8.7) | 2.5 (-12.2, 7.2) | |
| Any readmission within 6 weeks postpartum | | | | | | | | | | |
| No (n = 100) | 84.6 (20.4) | 69.7 (38.8) | 51.6 (43.5) | 38.3 (21.3) | 57.6 (21.2) | 64.5 (20.2) | 76.6 (25.8) | 63.8 (19.7) | 55.5 (28.1) | |
| Yes (n = 37) | 84.8 (20.4) | 72.3 (38.9) | 47.7 (46.1) | 42.8 (18.2) | 58.6 (18.6) | 62.1 (20.9) | 71.9 (25.2) | 58.9 (20.2) | 60.1 (29.7) | |
| Mean difference (95% CI) | 0.3 (-8.0, 7.5) | 2.5 (-17.3, 12.2) | -3.9 (-12.9, 20.7) | 4.6 (-12.4, 3.3) | 0.9 (-8.8, 6.8) | -2.3 (-5.4, 10.1) | -4.7 (-5.1, 14.5) | -4.9 (-2.6, 12.5) | 4.6 (-15.5, 6.2) | |
| Readmission with secondary postpartum haemorrhage | | | | | | | | | | |
| Yes (n = 10) | 85.5 (17.6) | 67.5 (42.5) | 29.9 (39.9) | 35.5 (14.9) | 50.8 (20.4) | 60.0 (23.4) | 68.5 (26.7) | 55.0 (20.0) | 55.0 (32.9) | |
| No (n = 127) | 84.6 (20.5) | 70.6 (38.5) | 52.2 (44.1) | 39.8 (20.9) | 68.4 (20.4) | 64.1 (20.1) | 75.9 (25.5) | 63.1 (19.8) | 56.8 (28.2) | |
| Mean difference (95% CI) | -0.9 (-12.3, 14.1) | 3.1 (-28.4, 22.1) | 22.2 (-50.7, 6.3) | 4.3 (-17.7, 9.1) | 7.6 (-20.9, 5.6) | 4.1 (-17.4, 9.1) | 7.4 (-24.8, 9.2) | 8.1 (-21.0, 4.8) | 1.9 (-20.5, 16.7) | |
| Readmission with infection within 6 weeks postpartum | | | | | | | | | | |
| Yes (n = 16) | 82.8 (25.1) | 67.1 (40.5) | 45.8 (46.9) | 37.5 (17.7) | 55.0 (20.9) | 59.3 (22.1) | 74.2 (30.5) | 50.6 (23.3) | 50.0 (30.2) | |
| No (n = 121) | 84.9 (19.6) | 70.8 (38.6) | 51.2 (43.9) | 39.7 (21.0) | 58.2 (20.5) | 64.4 (20.1) | 75.5 (25.1) | 64.1 (18.9) | 57.6 (28.3) | |

(Continues)

TABLE 3 (Continued)

| SF-36 domain (n = 136) | | | | | | | | | | |
|---|----------------------|----------------------------|-----------------------------|-------------------|----------------------|--------------------|-------------------|------------------|-------------------|--|
| Variable | Physical functioning | Role limitation - physical | Role limitation - emotional | Vitality | Emotional well-being | Social functioning | Pain | General health | Health change | |
| Mean difference (95% CI) | 2.1 (-12.8, 8.6) | 3.6 (-24.1, 16.7) | 5.4 (-31.3, 20.5) | 2.3 (-13.1, 8.5) | 3.2 (-14.1, 7.6) | 5.1 (-15.7, 5.6) | 1.3 (-14.8, 12.2) | 13.4 (3.1, 23.7) | 7.6 (-22.6, 7.4) | |
| Readmission involving return to theatre within 6 weeks postpartum | | | | | | | | | | |
| Yes (n = 16) | 85.6 (19.1) | 70.3 (37.8) | 35.4 (42.9) | 40.9 (13.1) | 56.5 (17.3) | 62.5 (22.4) | 68.5 (25.2) | 57.5 (16.9) | 54.7 (30.6) | |
| No (n = 121) | 84.5 (20.5) | 70.5 (38.9) | 52.6 (44.0) | 39.3 (21.4) | 58.0 (20.9) | 64.0 (20.1) | 76.3 (25.6) | 63.2 (20.3) | 57.0 (28.4) | |
| Mean difference (95% CI) | -1.1 (-9.6, 11.7) | 0.1 (-20.5, 20.3) | 17.2 (-40.3, 5.9) | -1.5 (-9.2, 12.4) | 1.5 (-12.3, 9.2) | 1.5 (-12.1, 9.1) | 7.7 (-21.2, 5.6) | 5.6 (-16.1, 4.7) | 2.3 (-17.4, 12.7) | |
| Number of months since delivery | | | | | | | | | | |
| <6 months (n = 27) | 68.2 (26.4) | 41.9 (40.8) | 38.1 (43.2) | 30.5 (21.9) | 52.2 (21.5) | 64.7 (18.6) | 60.1 (25.9) | 58.5 (19.9) | 49.1 (36.3) | |
| 6-12 (n = 22) | 87.1 (16.3) | 84.1 (26.2) | 66.7 (42.4) | 43.7 (23.1) | 59.5 (21.8) | 65.9 (18.9) | 80.9 (23.9) | 64.5 (24.6) | 52.3 (27.7) | |
| 12-24 (n = 34) | 87.9 (15.8) | 78.7 (35.9) | 50 (43.6) | 39.4 (20.4) | 59.1 (19.7) | 63.6 (21.1) | 82.9 (20.9) | 66 (17) | 63.9 (27.7) | |
| 24-36 (n = 53) | 90.1 (16.5) | 74.1 (37.0) | 52.2 (45.1) | 43.4 (18.1) | 60.5 (19.3) | 63.6 (20.9) | 75.7 (26.5) | 61.1 (19.5) | 58.9 (23.6) | |
| Mean difference† (95% CI) | 21.9 (10.2, 33.5) | 32.1 (9.4, 54.7) | 14.1 (-13.4, 41.6) | 12.8 (0.2, 25.5) | 8.2 (-4.5, 20.8) | -1.1 (-13.7, 11.6) | 15.5 (3.4, 30.9) | 2.5 (-9.9, 15.1) | 9.8 (-7.8, 27.5) | |

Values are displayed as mean (standard deviation).

CI, confidence interval; SF-36, Short Form 36.

†Mean difference comparing women at <6 months to 24 to 36 months postpartum.

Other studies have compared women with a previous caesarean birth who had an elective repeat caesarean or those with a complicated caesarean birth; however, these do not consider that women with PAS often have a long period of time to consider their own mortality, high-risk pregnancy, loss of fertility and potentially prolonged hospital admission and separation from family that many PAS women experience. A further limitation of this study is the design as a survey study where women self-reported their medical outcomes. This study is further limited by selection bias in that women with more psychological trauma are more likely to be part of a support group and therefore have responded to this survey.

The women who responded to this survey suffered considerable post-operative morbidity with a readmission rate of almost 1 in 3, which is significantly higher than that reported in other studies^{15,16} and may have contributed to the psychological morbidity, although subgroup analysis did not suggest that this was the case. This was an exploratory study and was not powered to detect hypothetical differences between the groups; therefore, the conclusions should not be overinterpreted. However, the results could be used as an indication for future research.

In conclusion, for women who have experienced a pregnancy complicated by PAS, physical health is significantly higher for women at more than two years postpartum compared to the immediate postpartum period. In contrast, mental health scores remained low in the long-term postpartum period. Pregnancy outcomes such as having a hysterectomy or postnatal readmission did not appear to worsen QoL. Additional postnatal supports for women affected by PAS may help address ongoing mental health issues.

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Data Availability Statement

The authors confirm that the data supporting the findings of this study are available within the article and Table S1.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Table S1 Female sexual function index