Human Reproduction Open, pp. 1–11, 2022
https://doi.org/10.1093/hropen/hoac032

human reproduction open

ORIGINAL ARTICLE

'A sorrow shared . . .': a qualitative content analysis of what couples with recurrent miscarriages expect from one another and their families and friends

C. Jansen [1], E. Kuhlmann [1,2], P. Scharli [1,2], M. Schick [1,3], B. Ditzen [1,3], L. Langer [2], T. Strowitzki [2], R.-J. Kuon [2], and T. Wischmann [1,*]

[1]Institute of Medical Psychology, Centre for Psychosocial Medicine, University Hospital Heidelberg, Heidelberg, Germany [2]Department of Gynaecological Endocrinology and Fertility Disorders, Heidelberg University Women's Hospital, Heidelberg, Germany [3]University of Heidelberg, Heidelberg, Germany

*Correspondence address. Institute of Medical Psychology, University Hospital Heidelberg, Bergheimer Str. 20, 69115 Heidelberg, Germany. Tel: +49-6221-56-8137; E-mail: tewes.wischmann@med.uni-heidelberg.de https://orcid.org/0000-0002-7837-0138

Submitted on September 7, 2021; resubmitted on July 5, 2022; editorial decision on July 8, 2022

STUDY QUESTION: When couples have to face recurrent pregnancy loss (RPL), what are the partners' wishes and needs and what is their perception of helpful and unhelpful factors with regard to their own, their partners' and their families' and friends' ways of dealing with the problem?

SUMMARY ANSWER: Women and men with repeated miscarriages want open communication about their losses, but expect a sensitive and empathetic attitude from others, not pity or trivialization.

WHAT IS KNOWN ALREADY: RPL not only causes the women affected and their partners considerable emotional distress; it also has an impact on the couples' relationships and the way they relate to their families and friends. Studies suggest that women have a greater need than their male partners to talk about their losses and that these differences may lead to dissatisfaction and cause relational tension. In addition, men often assume a 'mainstay' role, supporting their partners and displaying fortitude in the face of distress. As yet, however, little research has been conducted so far on the question of what the members of couples with RPL expect from one another and from their families and friends.

STUDY DESIGN, SIZE, DURATION: The study sample consisted of 147 couples and 17 women with at least 2 miscarriages attending the special unit for RPL at the University Women's Hospital in Heidelberg (Germany) for the first time between September 2018 and October 2020 (response rate: 82.7%). The patients were asked to participate in this combined qualitative and questionnaire study.

PARTICIPANTS/MATERIALS, SETTING, METHODS: In order to explore the wishes and needs of those affected in more detail, the free text responses obtained were examined in this study by using qualitative content analysis. Categories and subcategories were created inductively to summarize and systematize content.

MAIN RESULTS AND THE ROLE OF CHANCE: Patients affected by RPL want their partners and their families and friends to deal with the topic openly and empathically. In the partnership itself, acceptance of individual grieving modes and sharing a common goal are important factors. Men, in particular, want their partners to be optimistic in facing up to the situation. Regarding communication with family and friends, it transpired that 'good advice', playing the matter down, inquiries about family planning, pity and special treatment are explicitly not appreciated.

LIMITATIONS, REASONS FOR CAUTION: The sample was a convenience sample, so self-selection effects cannot be excluded. In addition, the level of education in the sample was above average. Accordingly, the sample cannot be regarded as representative. The results of the content analysis are based on the respondents' written answers to open-ended questions in the questionnaire. Unlike qualitative interview studies, further questioning was not possible in the case of ambiguities or to request more details.

WIDER IMPLICATIONS OF THE FINDINGS: Frank and sincere communication about miscarriages and about one's own emotions and needs should be promoted both in the partnership and among family members and friends in order to strengthen the potential of social support as a resource. Open communication about the different needs of both partners is necessary to create mutual understanding. The results show the importance not only of empathy and consideration for the couples concerned but also their desire not to be pitied. Striking a fine balance between fellow-feeling and pity may also lead to tension, and this potential dilemma should be addressed in psychosocial counselling. Overall, the study contributes to a better understanding of what couples want from their families and friends when they are attempting to come to terms with RPL and highlights potential challenges in the interaction between affected couples and their families and friends.

STUDY FUNDING/COMPETING INTEREST(S): No funding was received for this study. None of the authors declared any conflicts of interest.

TRIAL REGISTRATION NUMBER: DRKS00014965.

Key words: recurrent pregnancy loss / miscarriage / mental health / content analysis / communication

WHAT DOES THIS MEAN FOR PATIENTS?

Recurrent pregnancy losses (RPLs) are experienced by women as emotionally difficult. Little is known about how their male partners cope with RPL. In particular, there has been uncertainty about what the partners want from each other and from their families and friends.

In this study, 147 couples and 17 women with at least 2 miscarriages were asked open-ended questions about their wishes and the behaviours they experienced as helpful or unhelpful.

Patients affected by RPL want their partners and their families and friends to deal with the topic openly and sensitively. Open and honest communication about miscarriages and about one's own feelings and needs should be encouraged both in the partnership and among family members and friends. The results indicate not only the importance of empathy and consideration for the patients but also their desire not to be pitied.

Introduction

Defined by the World Health Organization as three or more consecutive miscarriages, recurrent pregnancy loss (RPL) affects about 1–3% of all couples (Royal College of Obstetricians and Gynaecologists, 2011; Toth *et al.*, 2015). Defining RPL as two or more consecutive miscarriages, a common definition in some countries, increases the prevalence to 5% (ESHRE Early Pregnancy Guideline Development Group, 2017; Practice Committee of the ASRM, 2020). According to current guidelines from medical associations, potential risk factors for RPL are maternal age, number of pregnancy losses, chromosomal anomalies, anatomical factors, endocrine disorders, immune factors, genetic factors and thrombophilia (Youssef *et al.*, 2019). Between 50% and 75% of couples with repeated miscarriages are diagnosed with unexplained RPL (Practice Committee of the ASRM, 2012).

Miscarriages are harrowing experiences leading to grieving processes similar to those triggered by other major losses such as the death of a close relative (Brier, 2008). Depression, anxiety and post-traumatic disorders can occur in the aftermath of a miscarriage (Farren *et al.*, 2018). The prevalence of depression and anxiety increases with the number of miscarriages (Toffol *et al.*, 2013), with about 9–17% of women with RPL reaching cut-offs for moderate or severe depression (Craig *et al.*, 2002; Kolte *et al.*, 2015) and about 21% displaying clinically relevant levels of anxiety (Craig *et al.*, 2002). Most studies on RPL have focused on women only, leaving out an account of the way their partners experience these spontaneous miscarriages. After RPL, however, men show increased levels of anxiety and depression, albeit to a lesser extent than their female partners (Serrano and Lima, 2006; Farren *et al.*, 2018; Chen *et al.*, 2020) and also display an increased incidence of erectile dysfunction (Zhang *et al.*, 2016).

RPL not only causes the women affected and their partners considerable emotional distress; it also has an impact on the couples' relationships and the way they relate to their families and friends. Women with RPL have a greater risk of their relationship breaking up than women without miscarriages or with live births (Gold *et al.*, 2010; Sugiura-Ogasawara *et al.*, 2013). The reasons are unknown, and research has been limited. Studies suggest that women have a greater need to talk about their losses than their male partners, and these differences may lead to dissatisfaction and cause relationship tension (Beutel *et al.*, 1996; Lang *et al.*, 2011). In addition, men often assume a 'mainstay' role, supporting their partners and displaying fortitude in the face of distress. This potentially diminishes their ability to show emotional vulnerability when this can be expected of them and may lead to suppression of their own feelings and needs (Wagner *et al.*, 2018; Obst *et al.*, 2020). There is also evidence for the occurrence of sexual problems in couples after a miscarriage (Serrano and Lima, 2006). In contrast, the partnership can also be a protective factor with regard to mental health, as spousal support and marital satisfaction are both associated with lower anxiety and depression scores after a single pregnancy loss or RPL (Kagami *et al.*, 2012; Farren *et al.*, 2018).

With regard to social support, the significance of miscarriages and especially the burdens they represent for men are often underestimated by outsiders (Lang *et al.*, 2011; Obst *et al.*, 2020). In a study by Beutel *et al.* (1996), 41% of the participating women were

disappointed by the reactions of their friends and families to miscarriages and complained about a lack of understanding and interest. This is alarming since social support provided by family and friends is known to be a protective factor for mental health and is associated with lower levels of depression and anxiety in women with RPL (Chen *et al.*, 2020; Gao *et al.*, 2020). Little is known about the kind of support that women with RPL and their partners wish to receive from their families and friends. Two qualitative studies from the USA and Australia give some initial indications, showing that support from friends and family members with similar experiences was perceived as helpful by women with one or more pregnancy losses and their partners (Bellhouse *et al.*, 2018; Wagner *et al.*, 2018). Instrumental support from friends and family (such as offers to prepare meals or take care of children) were appreciated, as were offers from employers to take time off and offers of support from churches. Recommendations to look forward to future pregnancies ('forget the miscarriage and start all over again') and attempts to highlight positive aspects of the miscarriages were perceived as insensitive, as were comments implying that the women's lifestyles and/or options might be (part of) the reason for their miscarriages.

In summary, there has been insufficient study of the kind of support women with RPL and their partners wish to receive from each other and their families and friends and which ways of dealing with miscarriages are perceived as helpful or otherwise. This leads to our study questions—when couples experience RPL: (i) what are the partners' wishes and needs? And (ii) what are their perception of helpful and unhelpful factors, focusing in both instances on their own, their partners' and their families' and friends' ways of dealing with the problem? Since little is known about men's needs and perceptions, gender differences were subjected to exploratory examination. A better understanding of the needs and perceptions of women with RPL and their partners can contribute to the provision of more accurately targeted professional support for the couples affected.

Materials and methods

Women and (if applicable) their partners attending the specialized consultation service for RPL at the Department of Gynaecological Endocrinology and Fertility Disorders, University Women's Hospital Heidelberg, Germany, between September 2018 and October 2020 were invited to participate in this combined qualitative and questionnaire study. For the results of the quantitative part of the study, see Voss *et al.* (2020). Exclusion criteria were age <18, fewer than two consecutive pregnancy losses, current pregnancy and inadequate knowledge of the German language. All participants were informed that study participation was purely voluntary and discontinuing participation was possible at any time.

Ethical approval and trial registration

The Institutional Review Board of the Heidelberg University Medical Faculty approved the study (No. S-422/2018). All procedures involving human participants performed in this study were in accordance with the ethical standards of the institutional and national research committees and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study is registered on www.drks.de and the registration number is DRKS00014965.

Data collection and measures

The women and (if applicable) their partners were invited (by R.-J.K. and L.L.) to participate in the study in the course of their first visit to the special unit for RPL at the University Women's Hospital, Heidelberg. Participants completed the questionnaire in the waiting room after the initial medical consultation and prior to the investigation of the causes for RPL. They were asked for individual responses to the questions. In some cases, the respondents took the questionnaires home and returned them by mail.

Wishes and (un)helpful factors

The qualitative investigation presented here was based on open-ended questions added to the questionnaires described previously (Voss *et al.*, 2020). The following four questions were designed to cast light on the women's (and their partners') wishes and needs and their perception of helpful and unhelpful factors in dealing with the recurrent miscarriages. (i) What would you want from your partner? (ii) What would you want from your family and friends? (iii) What do you experience as helpful in dealing with the recurrent miscarriages? And (iv) What do you experience as not being helpful at all?

Participants could respond in the empty spaces provided for the purpose on the question forms. The questions themselves were based on the collective clinical experience of the research group (all authors), which was made up of gynaecologists and psychologists specialized in involuntary childlessness and RPL.

Sociodemographic data

The following sociodemographic variables were assessed: gender, age, level of education and duration of the current partnership. In addition, the following obstetric variables were included: number of miscarriages, live births, months since last miscarriage and duration of the desire for a child.

Data analysis

The analysis of the four open-ended questions was based on Qualitative Content Analysis after Mayring (2014), as this is the standard methodological approach for content analysis in German science. Categories and subcategories were created inductively in an iterative process (by C.J.) and used to summarize and systematize the content. Answers too brief or unspecific etc. to lend themselves to analysis were left out of the account. When finalized, the classification system was passed on to a second reviewer (T.W.) for independent coding of content to avoid systematic coding errors. Discrepancies were discussed and the relevant codings were revised. MAXQDA Analytics Pro 2020 was used for coding. After final classification, a frequency count of categories and subcategories was conducted for the entire sample and separately for females and males. To quantify potential gender differences for their statistical significance, chi-square tests or Fisher's exact tests (expected cell count < 5) were conducted.

Depending on the scale level of the relevant variables, potential gender differences in the sociodemographic variables were explored via chi-square tests or *t*-tests for independent samples. Statistical analysis

was performed using IBM SPSS Statistics 22 (IBM, Corporation, Armonk, NY, USA). $P < 0.05$ was considered statistically significant.

Results

A total of 376 individuals were invited to participate in the study. The questionnaires were completed by 147 heterosexual couples and 17 women (response rate: 82.7%). The answers given to the four open-ended questions totalled 6741 words, with a range of 1–45 words per answer. The sociodemographic and obstetric characteristics of the participants are shown in Table I. Participants were between 24 and 56 years old. The men were significantly older than the women ($t(308) = -2.66$, $P = 0.008$). The majority of participants either had the qualifications required for higher education or held a university degree (70.9%). There were no gender differences regarding education ($\chi^2(5) = 4.69$, $P = 0.455$). Relationship duration was 8.5 (SD = 5.3) years. Most pregnancy losses were diagnosed after the pregnancy had been clinically confirmed but before the 12th week of gestation (79.6%), while 5.9% of losses occurred between the 12th and 24th week of gestation.

What do I want from my partner?

In total, 232 of the 311 participants responded to the question asking what they wanted from their partners. Nine answers could not be coded because they were uninterpretable and were hence excluded from analysis. More women (58.3%) than men (41.7%) responded to this question. Four categories were established via qualitative content analysis: empathic and understanding treatment by the partner, the partner displaying optimism and a positive attitude, more frequent and more open communication with the partner, and setting a common goal as a couple. Figure 1 provides an overview of categories and subcategories as well as significant gender differences in the frequency counts of the codes assigned. A minority of participants (12 men, 26 women) stated that they had no wishes or were content with the situation as it was.

Empathic and understanding treatment by the partner

There were 90 participants, most of them women (54.6% vs 20.4%, $\chi^2(1) = 24.92$, $P < 0.001$), who indicated how they wanted to be treated by their partners. The desideratum referred to most frequently was the wish to be treated with empathy and understanding (n = 54), which turned up significantly more often in responses by women (33.8% vs 10.8%, $\chi^2(1) = 14.52$, $P < 0.001$). This encompassed aspects like acceptance of individual ways of coping with miscarriages or understanding of emotional reactions and mood changes:

> *Understanding, even if one is in a bad mood "for no reason" [participant code# 7, female = (P7, f)]*
> *Understanding for the fact that I see the world more positively (P102, m)*

A number of women (n = 23) and two men wanted support and care from their partners, including consolation and 'being there for each other' (17.7% vs 2.2%, $\chi^2(1) = 11.64$, $P < 0.001$). There were 14 participants who mentioned the wish for cohesion, including aspects like 'getting through it together' (P59, m; P22, f) or 'acting in concert' (P104, m), and the wish to be loved 'in spite of all' (P33, f) and not to be left if childlessness persisted (P95, f; P118, f).

Five people wished that they spent more time together with their partners as a couple and three people wished their partner would allow them to provide help and care. The topic of sexuality was addressed by two men and one woman, with men wishing for 'more sex' (P115, m) or a 'satisfying sex-life' (P64, m), while the woman wished for more empathy regarding her 'lack of sexual desire' (P1510, f).

Partners displaying optimism and a positive attitude

Wishes on how the partner should deal with the miscarriages were specified by 58 participants, most of them men (51.6% vs 7.7%, $\chi^2(1) = 52.09$, $P < 0.001$). There were 23 men and 3 women who wanted their partners to display optimism and a positive attitude, including such things as gratitude for a good life, zest for living and such things

Table I Sociodemographic and obstetric characteristics of participants (n = 311).*

	n	Men	n	Women	*P*-value
Age in years	146	36.4 (±5.7)	164	34.9 (±4.5)	**0.008**[a]
Educational level					0.455[c]
University degree/postgraduate		*85* (59.0)		*83* (51.2)	
Qualification for university entrance		*18* (12.5)		*31* (19.1)	
Secondary school leaving certificate		*35* (24.3)		*39* (24.1)	
Lower/no school leaving qualification		*6* (4.2)		*9* (5.5)	
Pregnancy losses in current relationship			164	3.2 (±1.3)	
Months since last pregnancy loss[b]			164	5.1 (±4.5)	
At least one live birth	146	*45* (30.6)	163	*54* (32.9)	0.752[c]
Duration of desire for children, in years	143	3.3 (±2.4)	158	2.9 (±2.5)	0.214[a]

Data are presented as mean (±SD) or *n* (%). n values are in italics as indicated. Statistically significant values are indicated in bold.
*Due to missing data, the values do not always add up to n = 311.
[a]*t*-test for independent samples.
[b]At the time of completing the questionnaire.
[c]Chi-square test.

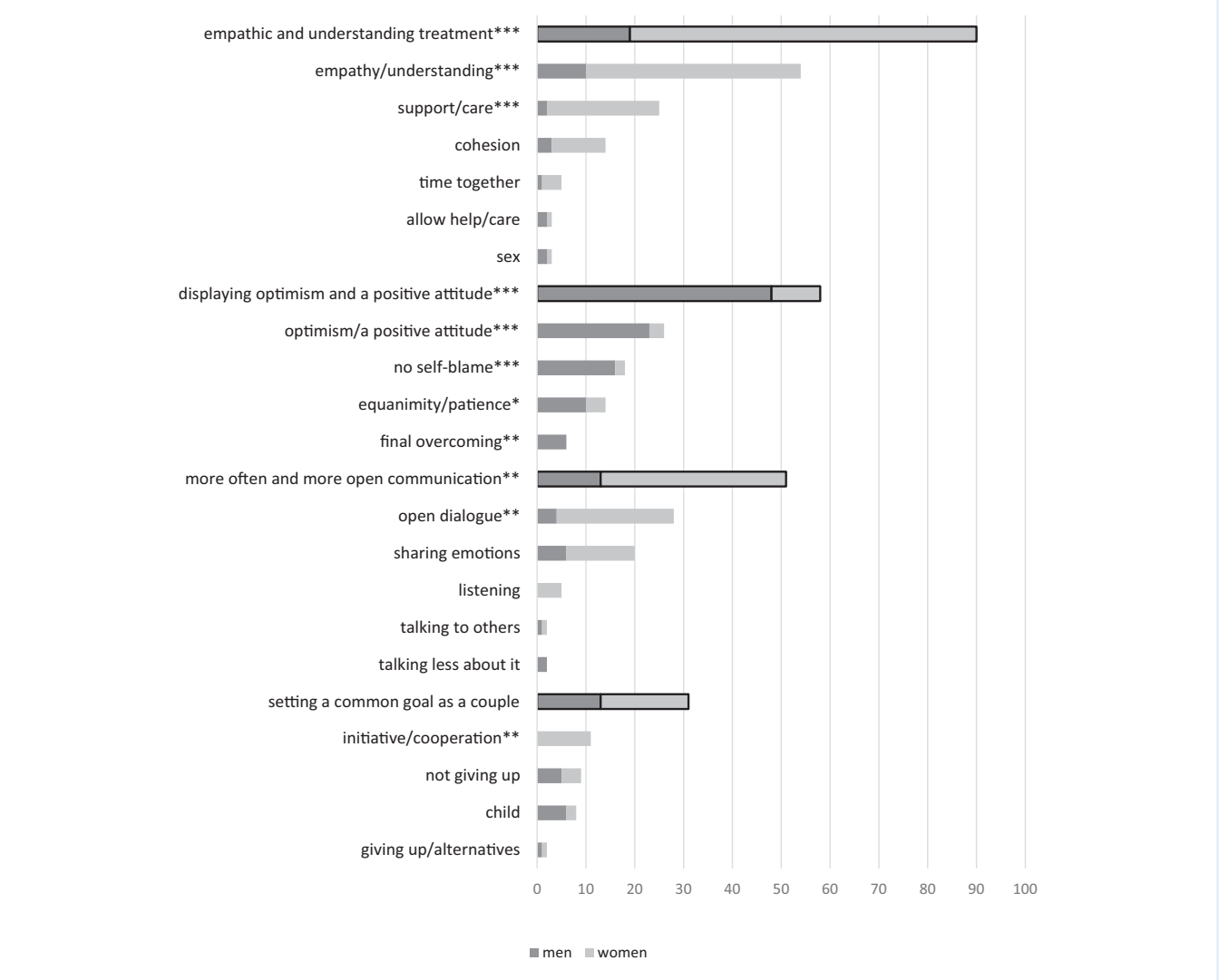

Figure 1. Number of men and women per category indicating what they want from their partners. Number of respondents per category from n > 1 on the topic of wishes regarding the partner. The main categories are outlined in black. n = 223; *$P < 0.05$, **$P < 0.01$, ***$P < 0.001$.

as appreciation of life, joie de vivre, hope and confidence (24.7% vs 2.3%, $\chi^2(1) = 24.33$, $P < 0.001$):

That she stays positive and does not forget how lucky we already are to have a daughter (P5, m)
Less despair . . . optimism works miracles (P80, m)

Another wish, mainly specified by men, was that their partners should not impose burdens on themselves (17.2% vs 1.5%, $\chi^2(1) = 15.99$, $P < 0.001$). This included aspects like self-blame, self-doubt, pressuring oneself or worrying too much. Some participants (n = 14), most of them men, wished that their partners would be calm and patient in dealing with the situation (10.8% vs 3.1%, $\chi^2(1) = 4.20$, $P = 0.040$). A number of men (no women) wanted their partners to get over their miscarriages (6.5% vs 0.0%, $P = 0.005$). They wanted them to 'get on top of their pain and sadness' (P61, m) and felt they should be able to 'engage with the experience' (P110, m) 'without after-effects' (P159, m).

More frequent and more open communication with the partner

Aspects of communication were important for 51 participants, including 38 women (29.2% vs 14.0%, $\chi^2(1) = 6.31$, $P = 0.012$). A number of the women (n = 24) and four of the men wished that their partners would talk to them about the miscarriages (more often) and deal frankly and openly with the topic (18.5% vs 4.3%, $\chi^2(1) = 8.65$, $P = 0.003$):

Talking more about it, the thoughts one has, not hiding oneself away (P132, f)
Having a chance to talk it over again and again (P7, f)

Six men and 14 women wanted their partners to show their feelings and talk about them. There should be 'no secrets' in connection with the partner's feelings (P24, m), they should talk more about their feelings whenever they were reminded of the loss (P151, m) or be more emotional:

It was his child that died, too. He was really distant (P130, f)

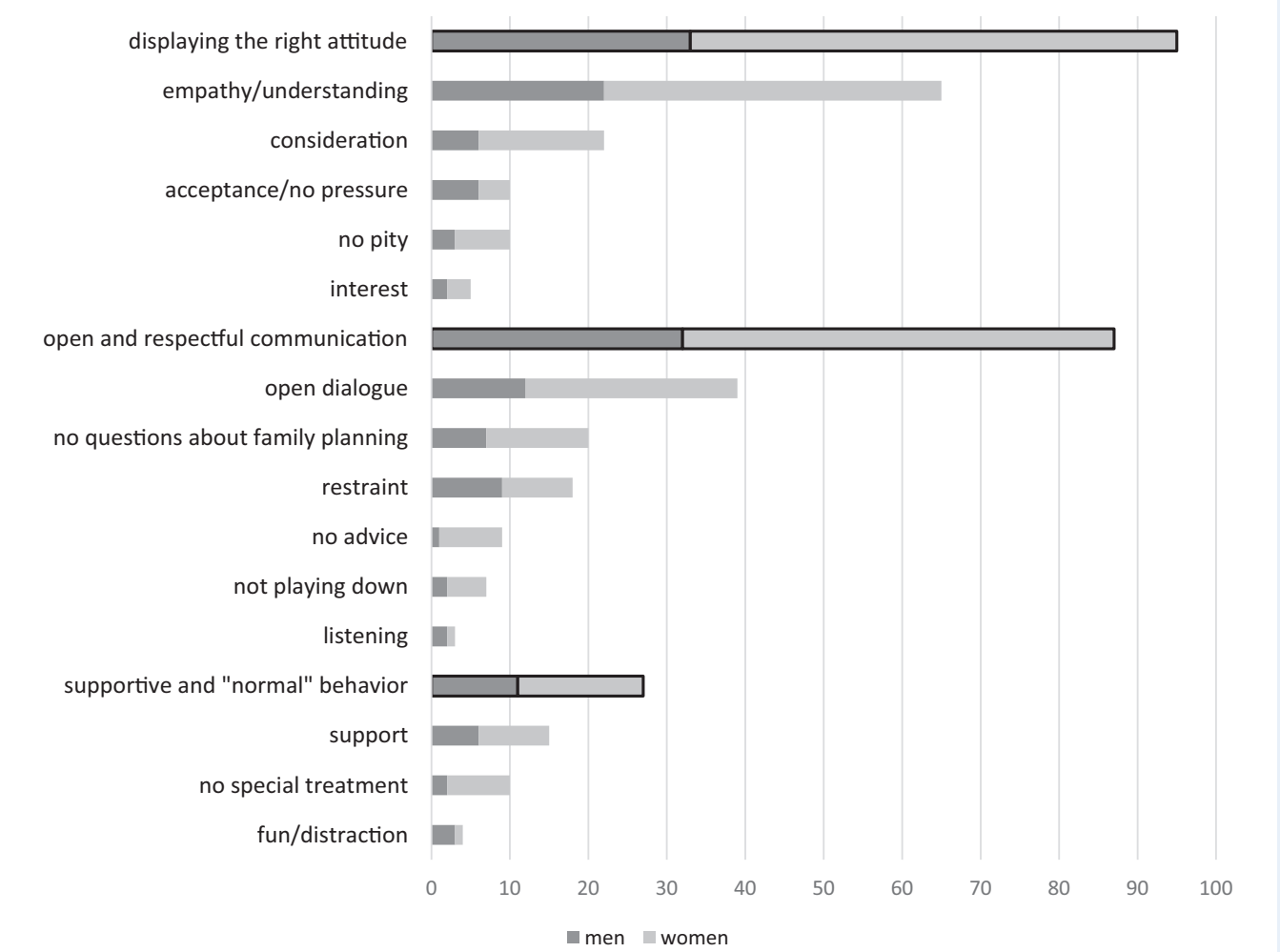

Figure 2. Number of men and women per category on the topic of what they want from their families and friends. Number of respondents per category from n > 1 on the topic of what respondents wanted from their families and friends. The main categories are outlined in black; n = 195; no significant gender differences were found.

Two participants wanted their partners talk to other people about their losses (P61, m; P147, f). Two men wanted their partners to talk less about the topic (P92, m; P96, m). Three women explicitly wanted their partners to listen to them 'without suggesting solutions' (P52, f; P127, f; P163, f).

Setting a common goal as a couple

Envisaging a common goal, i.e. a live birth, was a relevant topic for 31 participants. A number of women (n = 11, no men) wanted their partners to show more initiative and greater cooperation in the pursuit of this goal (8.5% vs 0.0%, $P = 0.003$). This included such things as clarification via medical examinations, looking for doctors/alternative treatments and supporting the desire for a child.

Nine participants wanted their partners not to give up live birth as a goal. These partners should have the 'courage' (P19, m; P127, m), the 'strength' (P214, m) or the 'perseverance' (P153, f) to try again. In contrast, one man wanted his partner to give up the desire for a child (P21, m) and two participants wanted to talk about alternative strategies like adoption (P15, m; P106, f). Six men and two women simply stated that they wanted a child from their partner.

What do we want from our families and friends?

In total, 195 of the 311 participants answered the question of what they wanted from their families and friends in terms of response to miscarriages. More women than men (62.1% vs 37.9%; $\chi^2(1) = 17.22$, $P = 0.000$) answered the question. Three categories materialized from the qualitative content analysis: displaying the right attitude, open and respectful communication and supportive and 'normal' behaviour. A summary of categories and subcategories plus significant gender differences in the frequency counts of the assigned codes are presented in Fig. 2. Eleven participants (5 men, 6 women) stated that they had no wishes in this respect or were content with the situation. Two men and three women stated that they had not informed their family and friends about the miscarriages.

Displaying the right attitude: family and friends

Desires regarding the attitude displayed by family members and friends were specified by 95 participants. Most frequently mentioned was the desire for empathy and understanding (n = 65), which included such things as sympathy for grieving behaviour or social withdrawal and acknowledgement for the severity of the loss:

Understanding devoid of scrutinizing behaviour/including understanding for withdrawal from pregnant couples: understanding that one is not able to be happy for them (P7, f)
Understanding that it takes time to recover physically and mentally (P111, f)

The desire for consideration was referred to by 23 participants. This encompassed such things as tact and sensitivity in dealing with pregnancy- or children-related topics. For example, family and friends should not 'go into raptures about other children' (P25, f). Other aspects like latitude and discretion were also referred to.

Ten participants wanted their family and friends to accept the situation and not to impose expectations on them. In particular, the participants did not want to be pressured into having children:

Acceptance; no exertion of pressure, the situation itself is already stressful enough (P81, f)
From a certain age on, people expect you to have children (P155, f)

Ten participants stated explicitly that their family and friends should offer support and display empathy, not pity. Five participants wanted them to show more interest, display 'less ignorance' (P52, f) and have time for them.

Open and respectful communication by family and friends

Desires regarding communication with others were specified by 87 participants. The participants wished to talk openly to family and friends about the miscarriages (n = 39). Family members and friends should have 'no reservations' (P50, f), inquire how things were going and address the topic openly. One man stated explicitly that they should also ask how he was doing, not only his wife (P206, m). As a subject, miscarriages should not remain 'taboo' (P13, m) and 'more women should talk about their miscarriages' (P20, f):

In most cases, your family and friends know nothing about the miscarriages! The problem is treating the topic as taboo. I only told a few people [about the miscarriages] and suffered in silence. I wish that miscarriages were socially accepted (P175, f)

In contrast to the 39 people in favour of a dialogue on the topic, 18 people did not want inquiries on the subject from other people and expected restraint from their families and friends. If there is a need for support or a need for exchanges on the matter, this should be expressly stated (P12, m; P104, f).

There were 20 participants who wanted their family and friends not to ask them about family planning. Questions about another child or pregnancy such as 'when are you going to have your next child?' (P27, f) should be avoided and 'after four miscarriages' can be debilitating (P209, m).

Nine participants stated that their family and friends should not offer (unrequested) advice, tips or guidance. One participant stated:

Advice should only be given by people who have been affected themselves or whose (close) relatives are affected (P151, m)

Furthermore, others should not play down the miscarriages (n = 7), but show due 'deference for the deceased babies' (P139, f). Three participants explicitly wished that their families and friends would 'continue just to listen' (P104, m; P1520, m; P95, f).

Supportive and 'normal' behaviour by family and friends

Desires regarding the behaviour displayed by family members or friends were specified by 27 participants. Most frequently, participants wished for support but did not define exactly what support meant for them (n = 15). Some participants used keywords like 'backing' or 'words of encouragement'. Four people wanted their families and friends to provide them with distraction and 'fun'.

Ten participants stated that they did not want to be treated in a special manner. Instead, they wanted 'normal behaviour' (P3, f) and did not want 'to be wrapped up in cotton wool' (P136, f). Family and friends should 'not perceive miscarriages as a disease' and should 'not treat one as if one were sick' (P57, m).

Helpful and unhelpful communication

In total, 246 of the 311 participants answered the question of what they perceived as helpful in dealing with miscarriages, while 205 indicated what they perceived as unhelpful. Six of the 205 answers could not be coded because they were uninterpretable and were hence excluded. More women (n = 141, n = 119, respectively) than men (n = 105, n = 80, respectively) answered these questions. In terms of partnership and family/friends, two categories materialized from the analysis: helpful and unhelpful aspects in connection with communication. A summary of categories and subcategories plus significant gender differences in the frequency counts of the codes assigned are presented in Fig. 3.

Helpful aspects in communication with the partner and with family and friends

Various aspects of communication were perceived as helpful by 123 participants. Talking about the miscarriages and dealing openly with the topic was perceived as helpful by 91 participants. A major aspect was open communication with the partner and with (closer) friends or relatives. In addition, 'social recognition of the topic' was perceived as helpful (P130, m; P203, f) as was the 'open discussion of alternatives with the partner' (P13, m; P113, m) and with 'people prepared to listen' (P5, m; P95, m; P104, m; P9, f).

Open exchange with other people affected either face-to-face or via internet forums was perceived as helpful by 30 participants, most of them women (16.3% vs 6.7%, $\chi^2(1) = 4.37$, $P = 0.037$). According to the participants, talking to couples with similar experiences brings home the fact that one is not alone with this problem and can hence encouraging:

Internet forums. For the first time, you experience women with the same fears and the same emotions (P20, f)
When other people talk about their experiences, you know you are not alone (P1570, m)

Unhelpful aspects in communication with the partner and with family and friends

Various aspects of communication were perceived as unhelpful by 98 participants, most of them women (55.5% vs 40.0%, $\chi^2(1) = 3.98$,

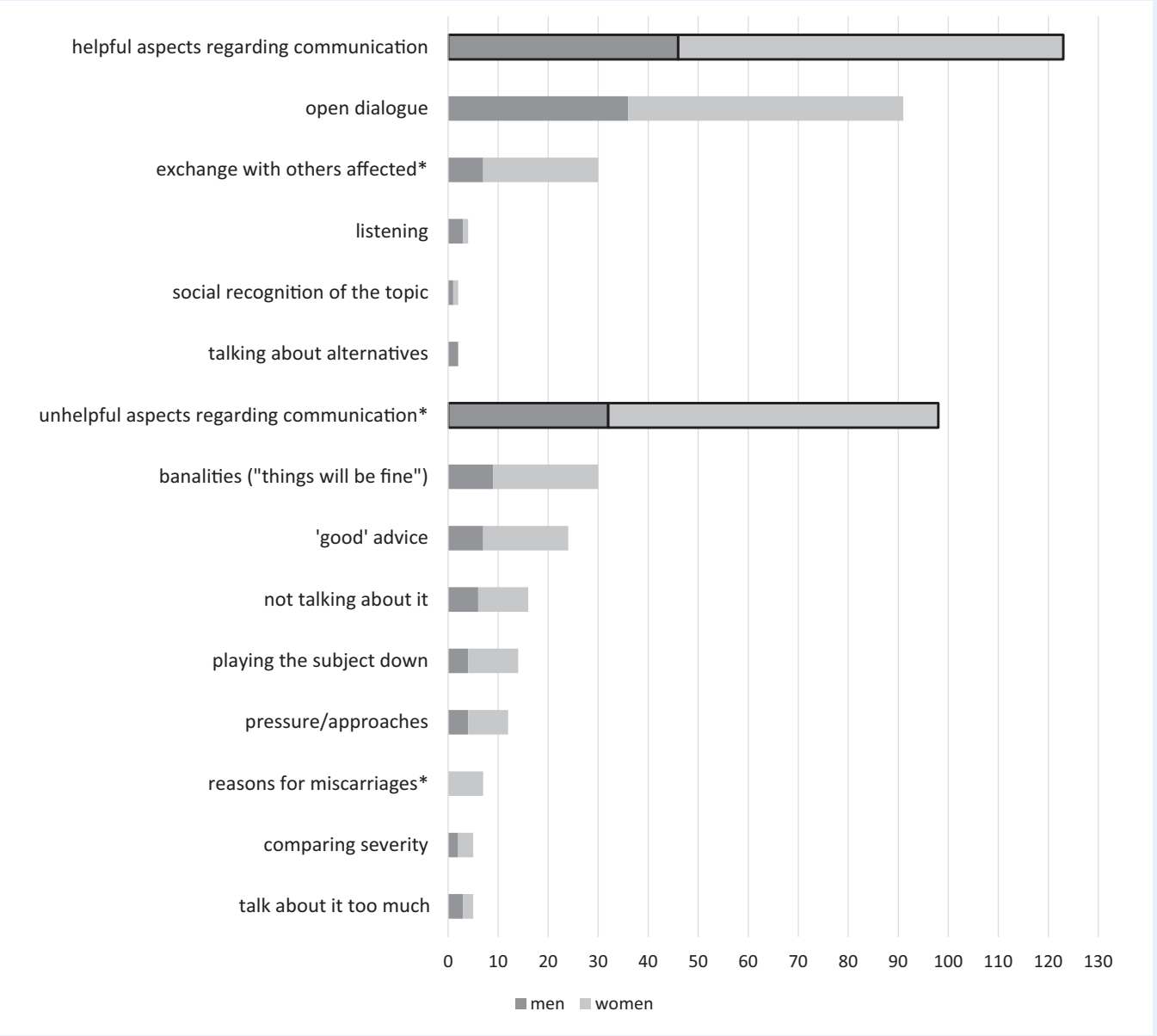

Figure 3. Number of men and women per category on helpful and unhelpful aspects of communication. Number of respondents per category from n > 1 on helpful and unhelpful aspects of communication. The main categories are outlined in black; n = 195; *$P < 0.05$.

$P = 0.046$). Comments like 'it'll turn out fine', 'you are still young' or 'just try again' were not perceived as helpful at all. Such comments 'hurt more than they encourage' (P143, f) and the convictions expressed in this way have to come from 'within' the couples affected (P166, f).

'Good advice' from family and friends was also perceived as unhelpful (n = 24). Responses of this kind included 'well-meant advice' from laypersons or people not affected by miscarriages as well as instructions about 'the right thing to do' or the suggestion to adopt a child:

Unsolicited advice from people who have not been through this experience (P127, f)

Well-meant advice which is totally uncalled-for or has no relevance for your own situation (P104, m)

Playing down the miscarriages was perceived as unhelpful (n = 14). Attempts to 'soften the blow' (e.g. pointing out that an affected couple already has children or that the miscarriage occurred relatively early) were not perceived as helpful:

Friends who act like I was 'not really pregnant', so it was not so bad (P212, f)
Advising me that I shouldn't worry because such things can always happen, and we already had a child anyway (P42, f).

Seven women stated that they perceived it as unhelpful when family members or friends attempted to rationalize about the miscarriages (5.9% vs 0.0%, $P = 0.043$). This included comments like 'it is probably for the best' (P111, f) or 'be glad that nature decided it that way' (P5, f).

Comparing the 'severity' of the grief caused by miscarriages with that of other people affected was also perceived as unhelpful (n = 5).

This included comments like 'a blessing it happened so early, XY's miscarriage happened much later, that's a lot worse' (P170, f) or focusing on grief as a way of speculating on 'who is grieving most' (P40, f) or 'which case was worse' (P159, m).

Family members exerting pressure were perceived as unhelpful. Typical comments here were 'you didn't look after yourself properly' (P88, f), 'we want to be grandparents in our lifetime' (P118, m), addressing the 'advanced age' of the woman affected (P147, f) and 'permanently asking' about how things are shaping up (P3, m) or whether one is pregnant (P107, f).

Not talking openly about the topic or 'hushing it up' was perceived as unhelpful by 16 participants. In contrast, five participants stated that it was not helpful to talk 'too much' (P127, f) or 'permanently' (P174, m) about the miscarriages.

Discussion

The content analysis shows that in most cases women with RPL and their partners want open communication in their partnership, empathic interpersonal interaction, an optimistic attitude in dealing with the situation and agreement on common goals for their partnership. Analysis of the desires regarding family and friends shows that most of those affected would like other people to deal openly with the topic of miscarriages, display an empathic attitude and be supportive. Helpful/unhelpful factors encountered in dealing with the miscarriages mostly centred around aspects of communication with family and friends.

These important study findings should be communicated in simple language to couples with RPL and their families and friends. Brochures, websites and other easily accessible sources of information can serve this purpose. Future studies should investigate the extent to which this information can alleviate the emotional distress of couples with RPL.

What men and women with RPL want from their partners

Sharing thoughts and emotions: 'a sorrow shared is a sorrow halved'

More women than men talk frequently and openly with their partners about the miscarriages and talk more about their experiences. This is in line with results from former studies indicating that more women want to talk about this experience and pinpointing the potential for conflict associated with this imbalance (Beutel *et al.*, 1996; Lang *et al.*, 2011). Potential conflict was also inherent in the desire expressed exclusively by women for their partners not to respond by coming up with a (potential) solution, but simply by listening. Women more frequently expressed the desire for their partners to display empathy and understanding. This is consistent with findings from a study in which some women complained that their partners were not fully able to gauge the impact the miscarriages had on them (Bellhouse *et al.*, 2018). More frequent reference to this desire may also be due to the greater emotional distress experienced by women with RPL than by men (Serrano and Lima, 2006; Farren *et al.*, 2018; Chen *et al.*, 2020). This desire for empathic and understanding communication might be usefully addressed in counsels administered to RPL couples.

Women more often than men expressed a desire to receive support and care from their partners. Receiving support from the partner is indeed associated with lower anxiety and depression scores for women (Kagami *et al.*, 2012; Farren *et al.*, 2018). By accepting the role of support-giver, men may also experience a denial of their right to grieve (Wagner *et al.*, 2018). Accordingly, not only women with RPL but also their partners should be given appropriate attention by the hospital staff.

Men were more likely to want their partners to remain optimistic, to value the positive things in their lives, and to remain cheerful, hopeful and confident. While the women investigated mainly commented on interactive aspects, the men focused more strongly on a 'more relaxed' handling of the situation by their partners. The improvement of the partner's psychological state could indeed ease the situation for the women affected. At the same time, however, such desires could put pressure on the women and increase their feeling of not being understood. In counselling for RPL couples, it might be useful to make both partners aware of an undesirable polarization pattern or role allocation in their relationship, as found in couples who cannot conceive (Wischmann and Kentenich, 2017).

Family and friends: do's and don'ts

Understanding the severity of loss: breaking the silence

The results show that, as in their partnerships, respondents also want their families and friends to deal openly with the miscarriages. The findings indicate that the topic of RPL is still taboo for family members and friends, so they react to it with silence. Our study shows that there are also women who do not want to be approached on the topic of miscarriage, preferring to address the issue themselves. Not informing family and friends about the miscarriages was described as unhelpful by respondents. Those affected should therefore be encouraged to inform their closest relatives and friends about their experiences. Worthy of note is one man's wish to be asked about how he was doing under the circumstances and not just his wife, which is in line with study results suggesting that men's grief is often overlooked (O'Leary and Thorwick, 2006; Wagner *et al.*, 2018).

The results on the question of the right attitude show that women and men primarily want understanding and empathy from their families and friends. This is consistent with findings from other studies (Bellhouse *et al.*, 2018; Wagner *et al.*, 2018). Addressing the subject of pregnancy and/or children in their presence was perceived as insensitive by some respondents. The results show not only the importance of empathy and consideration for the couples concerned but also the desire not to be pitied. This fine differentiation between compassion and pity also harbours potential for tension and should be addressed in psychosocial counselling. Some 'well-meaning' or thoughtless statements and questions from outsiders are experienced as stressful by couples affected by RPL and were not perceived as helpful at all. Family and friends should not harbour any expectations or exert pressure on RPL couples to have children. In the present study, women reported finding justifications for miscarriage unhelpful, for example seeing it as a 'protective function of the body'. In addition, playing down the situation, apportioning blame and indulging in comparisons of the relative severity of different miscarriages are perceived as unhelpful. The results indicate a discrepancy between what family members and friends assume is helpful and what those affected

actually experience as such. Several respondents stated that they did not want any special treatment or did not want to be treated as if they were ill, a circumstance also referred to in answers to the question regarding unhelpful aspects. Again, the subtle distinction between support in the broader sense and special treatment is a potential source of conflict, and this should be addressed appropriately when counselling RPL couples.

Exchange with others: 'We are not alone'

Sharing the experience with other couples who have also had miscarriages was described as helpful by some of the patients affected. This is consistent (i) with study findings showing that emotional support from people with similar experiences is perceived as particularly helpful by both men and women (Bellhouse *et al.*, 2018; Wagner *et al.*, 2018) and (ii) with findings on the beneficial influence of support groups (Côté-Arsenault and Freije, 2004; Carlson *et al.*, 2012). It therefore seems advisable for the medical staff to arrange for contact options with support groups or to name relevant internet forums.

Limitations of the study

Our study identifies the main desiderata expressed by couples with RPL vis-à-vis their partners and their families and friends, as well as exploratory gender differences. The study (with an excellent response rate) generates further research issues for qualitative and quantitative projects. Nevertheless, there are some limitations that should be taken account of when interpreting the findings.

The sample is a convenience sample, so self-selection effects cannot be excluded. Moreover, there is a lack of research on homosexual or transgender couples and pregnancy loss, as they may experience more challenges with less perceived support from society. In addition, the members of our study sample have above-average status with regard to education. Accordingly, the study cannot be regarded as representative.

A major limitation is that the results of the content analysis are based on respondents' written answers to open-ended questions in the questionnaire. Unlike in qualitative interview studies, further questioning was not possible in the event of ambiguities or to request more details. For example, it remains unclear exactly what kind of support some RPL couples wanted from their families and friends. In addition, some data could not be evaluated because the interpretation was dubious. Based on the findings, guidelines for qualitative interviews can be developed to shed more light on ambiguous/ambivalent issues.

Conclusions

The results show that there are instances where the wishes expressed by women and men with RPL are more or less identical. There are, however, also wishes that tend to be voiced more frequently by one gender than the other. The more gender-specific wishes in particular may harbour potential for conflict in the partnership, not least because they seem to be less apparent to the other partner. Open communication about the different needs of both partners is therefore essential to create mutual understanding. Accordingly, interventions should therefore promote the communication of both partners' needs, as open and honest communication about the miscarriages and the emotions involved can strengthen the partnership in the long term and alleviate the grief caused by the experience. Future research should focus on the effects of counselling couples with RPL (e.g. in quantitative studies with control groups) and should help to identify the psychological resources of both women and men in coping successfully with this challenging situation (e.g. in qualitative interview studies).

Overall, the study also contributes to a better understanding of what couples want from their families and friends when dealing with RPL and highlights potential challenges in the interaction between affected couples and their families and friends. Accordingly, it would seem to be particularly important to enlighten the general public on the miscarriage issue, thereby creating more awareness of the psychological consequences of RPL for both women and men.

Data availability

The data used and analysed in the current study are available from the corresponding author (T.W.) upon reasonable and justified request.

Acknowledgements

We thank all the women and men participating in the study for their time and cooperation. We also wish to thank the entire staff of the Women's Hospital Department in Heidelberg.

Authors' roles

C.J., M.S., B.D. and T.W. conceived and designed the study. E.K., P.S., L.L., T.S. and R.-J.K. acquired the data. All authors contributed to the analysis and interpretation of the data. All authors were involved in the drafting or critical revision of the article and approved the final version.

Funding

No funding was received for this study.

Conflict of interest

No conflicts were declared by any of the authors.

References

Bellhouse C, Temple-Smith MJ, Bilardi JE. "It's just one of those things people don't seem to talk about . . ." women's experiences of social support following miscarriage: a qualitative study. *BMC Womens Health* 2018;**18**:176.

Beutel M, Willner H, Deckardt R, Von Rad M, Weiner H. Similarities and differences in couples' grief reactions following a miscarriage: results from a longitudinal study. *J Psychosom Res* 1996;**40**:245–253.

Brier N. Grief following miscarriage: a comprehensive review of the literature. *J Womens Health (Larchmt)* 2008;**17**:451–464.

Carlson R, Lammert C, O'Leary JM. The evolution of group and online support for families who have experienced perinatal or neonatal loss. *Illn Crisis Loss* 2012;**20**:275–293.

Chen S-L, Chang S-M, Kuo P-L, Chen C-H. Stress, anxiety and depression perceived by couples with recurrent miscarriage. *Int J Nurs Pract* 2020;**26**:e12796.

Côté-Arsenault D, Freije MM. Support groups helping women through pregnancies after loss. *West J Nurs Res* 2004;**26**:650–670.

Craig M, Tata P, Regan L. Psychiatric morbidity among patients with recurrent miscarriage. *J Psychosom Obstet Gynaecol* 2002;**23**:157–164.

ESHRE Early Pregnancy Guideline Development Group. *Recurrent Pregnancy Loss*. 2017. https://www.eshre.eu/Guidelines-and-Legal/Guidelines/Recurrent-pregnancy-loss (4 July 2022, date last accessed).

Farren J, Mitchell-Jones N, Verbakel JY, Timmerman D, Jalmbrant M, Bourne T. The psychological impact of early pregnancy loss. *Hum Reprod Update* 2018;**24**:731–749.

Gao L, Qu J, Wang AY. Anxiety, depression and social support in pregnant women with a history of recurrent miscarriage: a cross-sectional study. *J Reprod Infant Psychol* 2020;**38**:497–508.

Gold KJ, Sen A, Hayward RA. Marriage and cohabitation outcomes after pregnancy loss. *Pediatrics* 2010;**125**:e1202–e1207.

Kagami M, Maruyama T, Koizumi T, Miyazaki K, Nishikawa-Uchida S, Oda H, Uchida H, Fujisawa D, Ozawa N, Schmidt L *et al*. Psychological adjustment and psychosocial stress among Japanese couples with a history of recurrent pregnancy loss. *Hum Reprod* 2012;**27**:787–794.

Kolte AM, Olsen LR, Mikkelsen EM, Christiansen OB, Nielsen HS. Depression and emotional stress is highly prevalent among women with recurrent pregnancy loss. *Hum Reprod* 2015;**30**:777–782.

Lang A, Fleiszer AR, Duhamel F, Sword W, Gilbert KR, Corsini-Munt S. Perinatal loss and parental grief: the challenge of ambiguity and disenfranchised grief. *Omega (Westport)* 2011;**63**:183–196.

Mayring P. *Qualitative Content Analysis: theoretical Foundation, Basic Procedures and Software Solution*. Klagenfurt: Social Science Open Access Repository SSOAR, 2014.

O'Leary J, Thorwick C. Fathers' perspectives during pregnancy, postperinatal loss. *J Obstet Gynecol Neonatal Nurs* 2006;**35**:78–86.

Obst KL, Due C, Oxlad M, Middleton P. Men's grief following pregnancy loss and neonatal loss: a systematic review and emerging theoretical model. *BMC Pregnancy Childbirth* 2020;**20**:11.

Practice Committee of the ASRM. Evaluation and treatment of recurrent pregnancy loss: a committee opinion. *Fertil Steril* 2012;**98**:1103–1111.

Practice Committee of the ASRM. Definitions of infertility and recurrent pregnancy loss: a committee opinion. *Fertil Steril* 2020;**113**:533–535.

Royal College of Obstetricians and Gynaecologists. *The Investigation and Treatment of Couples with Recurrent First-trimester and Second-trimester Miscarriage: Green-top Guideline No. 17*. 2011. https://www.rcog.org.uk/guidance/browse-all-guidance/green-top-guidelines/the-investigation-and-treatment-of-couples-with-recurrent-miscarriage-green-top-guideline-no-17/ (4 July 2022, date last accessed).

Serrano F, Lima ML. Recurrent miscarriage: psychological and relational consequences for couples. *Psychol Psychother* 2006;**79**:585–594.

Sugiura-Ogasawara M, Suzuki S, Ozaki Y, Katano K, Suzumori N, Kitaori T. Frequency of recurrent spontaneous abortion and its influence on further marital relationship and illness: the Okazaki Cohort Study in Japan. *J Obstet Gynaecol Res* 2013;**39**:126–131.

Toffol E, Koponen P, Partonen T. Miscarriage and mental health: results of two population-based studies. *Psychiatry Res* 2013;**205**:151–158.

Toth B, Würfel W, Bohlmann MK, Gillessen-Kaesbach G, Nawroth F, Rogenhofer N, Tempfer C, Wischmann T, von Wolff M. Recurrent miscarriage: diagnostic and therapeutic procedures. guideline of the DGGG (S1-Level, AWMF Registry No. 015/050, December 2013). *Geburtshilfe Frauenheilkd* 2015;**75**:1117–1129.

Voss P, Schick M, Langer L, Ainsworth A, Ditzen B, Strowitzki T, Wischmann T, Kuon RJ. Recurrent pregnancy loss: a shared stressor—couple-orientated psychological research findings. *Fertil Steril* 2020;**114**:1288–1296.

Wagner NJ, Vaughn CT, Tuazon VE. Fathers' lived experiences of miscarriage. *Fam J* 2018;**26**:193–199.

Wischmann T, Kentenich H. A couple who cannot conceive: coping with infertility. In: Paarlberg KM, van de Wiel HBM (eds). *Bio-Psycho-Social Obstetrics and Gynecology: A Competency-Oriented Approach*. Cham: Springer International Publishing, 2017, 249–261.

Youssef A, Vermeulen N, Lashley EELO, Goddijn M, van der Hoorn MLP. Comparison and appraisal of (inter)national recurrent pregnancy loss guidelines. *Reprod Biomed Online* 2019;**39**:497–503.

Zhang Y-X, Zhang X-Q, Wang Q-R, Yuan Y-Q, Yang J-G, Zhang X-W, Li Q. Psychological burden, sexual satisfaction and erectile function in men whose partners experience recurrent pregnancy loss in China: a cross-sectional study. *Reprod Health* 2016;**13**:73.