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Dualistic perspectives on illness coping experiences of individuals with depression and their spouses: a qualitative study

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ABSTRACT

Purpose: Dyadic coping interventions alleviate emotional problems in patients and families with a variety of chronic illnesses. Current coping research on depression focuses mainly on the individual level. This study examined the experiences of people with depression and their spouses, using a dyadic coping perspective to support the implementation of a targeted dyadic intervention.

Method: Semi-structured, in-depth interviews were conducted with patients with depression and their spouses. The data were organized and analysed using Colaizzi's seven-step method.

Results: The experiences of individuals with depression and their spouses were categorized into four themes and 12 subthemes: delays in medical care (delays in medical decision-making, delays in in-hospital care), spousal maladjustment (perceived stress of the illness, role conflict, negative emotions), coexistence of positive and negative dyadic coping strategies (shared coping, positive communication, emotional support, negative communication, overprotectiveness), and confusion and needs (fear of illness prognosis, desire for continuity of care).

Conclusion: Healthcare professionals should promote positive dyadic coping among individuals with depression and their spouses while caring for depressive illnesses. They should strengthen individuals' knowledge of the disease, attend to spouses' physical and mental health, explore couple-centred dyadic intervention strategies, and improve continuity in the healthcare system.

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1. Introduction

Depression, formally classified under mood disorders in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), is a complex and multidimensional condition characterized by persistent low mood, loss of interest or pleasure, and impaired functioning. Depression is also characterized by a high prevalence, high recurrence rate, and high risk of suicide (Heuschen et al., 2022; Lu et al., 2021; Malhi & Mann, 2018). Depression is a significant global health concern, with a lifetime prevalence ranging from 3% to 17% in various regions and an estimated 280 million people affected worldwide (World Health Organization, 2022). The Global Burden of Disease Study (GBD, 2022) ranks depression as one of the leading causes of disability, further underscoring its public health impact.

Two-thirds of individuals with depression have suicidal thoughts; 15% of individuals with severe depression symptoms choose suicide to end their lives, and estimates indicate that as many as one million people each year die by suicide caused by depression (Alagapan et al., 2023). Survey data from 2019 showed that the lifetime prevalence of depression in community-based populations over 18 years of age in China was 3.40% (Huang et al., 2019), and only 0.5% of individuals with depression are currently receiving adequate treatment (Lu et al., 2021). The consequences of depression extend beyond its association with suicidal ideation and suicide rates (Hammen, 2018). Its chronic nature significantly disrupts occupational functioning, interpersonal relationships, and family dynamics (Taylor et al., 2018). Caregivers, particularly spouses, often experience "caregiver role fatigue," a condition characterized by emotional exhaustion, reduced caregiving capacity, and increased vulnerability to mental health deterioration (Pinquart & Sörensen, 2003). Evidence suggests that spousal caregiving for individuals with depression can lead to heightened levels of stress, anxiety, and depression among caregivers themselves, further amplifying the societal burden (Chang & Horrocks, 2006).

At present, the aetiology and pathogenesis of depression have not been fully clarified, which may be the result of biological, psychological, and social factors (Dean & Keshavan, 2017; Santini et al., 2015). According to some studies, factors such as spousal unemployment, extramarital affairs, the use of

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addictive substances, and the presence of somatic diseases lead to an increased likelihood of depression (Kaggwa et al., 2021; Nielsen et al., 2021). Current treatment modalities for individuals with depression in China include both pharmacological and non-pharmacological interventions (psychotherapy and physiotherapy) (Cuijpers et al., 2011). In terms of pharmacotherapy, low medication adherence is a common problem that can be improved by family supervision. Psychotherapy mainly involves interpersonal psychotherapy and cognitive-behavioural therapy (Hicks et al., 2023). The husband-and-wife relationship is an important interpersonal relationship that affects the cognitive behaviour of individuals with depression (Leichsenring et al., 2016). The stress triggered by depression affects all parts of life for both individuals and their spouses. Couples are inherently cyclical in their stress coping and interactions, with one partner's stress translating to the other partner (Lee et al., 2021). At the same time, the interaction between spouses' perceptions of illness, and spouses' perceptions and attitudes towards illness can influence individuals' decisions to seek medical care (MacDonald et al., 2023). Spouses, as the primary caregivers of individuals with depression, play an important role in the development and treatment of depression and face more significant physical, psychological, and social burdens (Donato et al., 2023). Studies have shown that the experience of spousal stress affects patients' well-being and life satisfaction) and is detrimental to illness recovery; conversely, couples' interventions can help alleviate the stress of coping with illness (Weitkamp et al., 2021). Most current research on coping with depression has focused on individuals.

The concept of dyadic coping, rooted in Bodenmann's (1995) theory, emphasizes the joint stress management efforts of couples facing adversity. Numerous studies have shown that relevant interventions based on dyadic coping theory can alleviate the emotional distress of couples suffering from a variety of diseases (e.g., breast cancer, haematological neoplasms) (Bodschwinna et al., 2021; Suo et al., 2021) effectively enhance quality of life, and improve therapeutic outcomes (Çömez & Karayurt, 2020; Tiete et al., 2021). However, at present, the binary coping theory is limited to studies of patients with chronic diseases, and few binary studies have considered individuals with depression. Given the cyclical stress interactions between individuals with depression and their spouses, dyadic coping holds significant promise for alleviating emotional distress, improving treatment adherence, and reducing caregiver burden.

The general objective of this study was to explore the dyadic coping experiences of individuals with depression and their spouses to inform the development of targeted dyadic interventions. The specific objectives were summarized as follows: (1) to identify and categorize the coping experiences of individuals with depression and their spouses, (2) to analyse the interaction between patients and spouses in terms of stress perception, coping strategies, and support mechanisms, (3) to explore the urgent needs and challenges faced by both patients and their spouses in the context of dyadic coping, and (4) to provide evidence-based recommendations for healthcare professionals to design and implement dyadic interventions for individuals with depression.

2. Materials and methods

2.1. Design

This study considered the treatment experiences of individuals with depression and their spouses; therefore, a phenomenological approach was used to conduct a qualitative study. The phenomenological approach was selected because it was well-suited to explore the lived experiences of individuals with depression and their caregiving spouses, aligning with the study's objectives. This approach enabled a detailed understanding of how participants perceive and navigate their unique circumstances. Colaizzi's seven-step method for data analysis was justified by its systematic structure, supporting the rigorous exploration and thematic organization of experiential data.

2.2. Research participants

Using purposive sampling, individuals with depression and their spouses who were admitted to the psychiatric department of a tertiary-level hospital between September 2022 and May 2023 were selected for semi-structured, in-depth interviews. Although this restriction might be limiting, it was deliberately implemented to further explore the dyadic coping process. The sample's demographic composition, particularly the predominance of female individuals with depression and male caregivers, was recognized as a potential limitation. While the sample size was sufficient to achieve information saturation, the gender imbalance could influence the broader applicability of the findings.

2.2.1. Criteria for individuals with depression

For participants with depression, inclusion criteria were meeting the diagnostic criteria for depression; having a certain degree of understanding and expression ability, informed consent, and participating voluntarily; and being married and currently living with their spouses, and their spouses are their primary caregivers (caregiving time is greater than 40 hours per week). Exclusion criteria were withdrawal of informed consent; diagnosis of schizophrenia, paranoid psychosis, mania, and other psychotic disorders; and serious adverse drug reactions or symptoms, such as rigidity and inability to participate in the study.

2.2.2. Criteria for spouses

For spouses, inclusion criteria were being married and currently living with the individual or being their primary caregiver, having a certain degree of understanding and expression ability, and participating voluntarily. Exclusion criteria were cognitive or communication disorders and a history of mental illness.

Both individuals with depression and their spouses needed to meet the above criteria to participate in the study. The sample size was based on the principle that no new themes appeared and that there was information saturation. After the criteria review, ten couples were included as participants. The individuals with depression comprised seven women and three men; their ages ranged from 33 to 66 (53.20 ± 9.50) years old; one had a bachelor's degree, one had a college degree, three had a high school diploma, and five had an elementary school education. Spouses' ages ranged from 35 to 71 (54.90 ± 9.75) years old; one had a bachelor's degree, two had a junior college degree, one had a high school diploma, and six had an elementary school education. The individuals with depression were numbered A1–A10, and the corresponding spouses were numbered B1–B10 according to the interview order (with spouses assigned the same numbers). General information is shown in Table 1.

2.3. Ethics

Ethical safeguards were used to recognize the emotional vulnerability of participants, particularly individuals with chronic mental health issues and their caregiving spouses. Participants were assured of their right to withdraw from the study at any point without adverse consequences. After selecting the participants and before the formal interview was conducted, the purpose and significance of the study were explained, the principles of voluntary participation and confidentiality were emphasized, and an informed consent form was signed. Participants were assured that the recordings would be used anonymously, that their names would not be mentioned in any publication, and that the recordings would be deleted at the end of the study. This consideration was integral to conducting the study with sensitivity and respect for participants' well-being. The participants could refuse or discontinue the interviews without harm or loss. This study was reviewed approved by the Ethics Committee of the First Affiliated Hospital of Chongqing Medical University [Project ID: K2023–084].

2.4. Data collection

2.4.1. Determining the interview outline

A research team was established, including a psychiatrist, counsellor, nurse manager, and two nursing graduate students. Based on the study's aim, the research team focused on the current status of depression treatment and the connotations of binary coping to review the literature to determine the preliminary interview outline, modify the interview outline after group discussion, and determine the final interview outline by pre-interviewing two individuals with depression and their spouses (Table 2).

2.4.2. Data collection methods

The interviewees and interviewer agreed on a suitable time and place for the interview, and interviews with the individual and their spouse were conducted separately. In addition to audio recordings during the interview, field notes were carefully drafted and recorded. Details for the notes included the interviewees' facial expressions, body language, and the interviewer's opinions or ideas. During the interview, the researcher made flexible adjustments to the order and manner of questioning according to the guidelines of the interview outline and the actual situation of the interviewees while appropriately pursuing valuable questions without exerting any induction or intervention on the interviewees and without judging any of the interviewees' language. This study was based on repeating participants' information and analysing information without new themes, stopping all interviews when the information was saturated.

2.5. Data analysis methods

All data were numbered and filed, then organized. The audio recordings were transcribed verbatim within 24 hours after the interviews, including the non-verbal behaviours of the interviewees and the contents of the field notes. The data were transcribed, coded, and thematically refined using Colaizzi's seven-step method. First, all transcripts were read repeatedly word-by-word to get an overall sense of the situation. Next, significant statements that coincided with the study's subject were extracted. Then, meaningful statements were summarized and distilled. A search was conducted to identify common features or concepts of meaning to form themes, thematic clusters, and categories. Themes were related to the research phenomenon to provide a complete narrative. The results were integrated, describing the research phenomenon in detail, and stating the essential structures that make up the phenomenon. Finally, the interviewees confirmed the ideas' accuracy to improve the study's validity. The whole process was conducted independently by two members of the research

Table 1. General information of the study population ($n = 10$).

Patient											Spouse			
No.	Gender	Age /yrs old	Degree of education	Professional status	Course of a disease /yr	Medical insurance	Combined with other chronic diseases	Length of marriage/ yrs	Place of residence	Per capita family monthly income/yuan	No	Age/ yrs old	Degree of Education	Professional status
A1	Woman	33	University or college	Incumbent	2	Employee medical insurance	Yes	8	Cities and towns	8000	B1	35	University/ college	Incumbent
A2	Woman	56	Undergraduate course	Incumbent	3	Employee medical insurance	Yes	35	Cities and towns	5000	B2	60	Undergraduate course	Retire
A3	Woman	46	Primary school	Incumbent	1	The new rural cooperative medical insurance	Yes	20	Village	2000	B3	46	Primary school	Incumbent
A4	Woman	50	Senior high school	Wait for employment	1	Employee medical insurance	No	26	Cities and towns	5000	B4	53	Senior high school	Incumbent
A5	Man	59	Senior high school	Wait for employment	1	Urban resident insurance	Yes	35	Cities and towns	800	B5	60	Primary school	Wait for employment
A6	Man	61	Senior high school	Retired	20	Employee medical insurance	Yes	36	Cities and towns	4000	B6	61	University/ college	Retire
A7	Woman	47	Primary school	Wait for employment	4	Urban resident insurance	Yes	21	Cities and towns	2000	B7	50	Primary school	Wait for employment
A8	Man	59	Primary school	Wait for employment	8	The new rural cooperative medical insurance	Yes	26	Village	900	B8	57	Primary school	Wait for employment
A9	Woman	66	Primary school	Retired	1	The new rural cooperative medical insurance	Yes	41	Village	1500	B9	71	Primary school	Wait for employment
A10	Woman	55	Primary school	Retired	3	The new rural cooperative medical insurance	Yes	24	Village	2500	B10	56	Primary school	Incumbent

Table 2. Outline of interviews.

Outline of the patient's interview	Outline of the spouse's interview
1. How did you feel (cognitively, attitudinally, emotionally) when your doctor told you that you had been diagnosed with depression? 2. What are some of the work, life, and socialization difficulties you have experienced in the treatment of your illness? 3. Has there been any change in how you and your loved one get along since you got sick? What are the changes? 4. What efforts have you and your loved ones made to cope with the changes brought about by the disease? What are the effects? 5. What kind of support did you receive from the person you came to love during your treatment? Or what support do you desire? 6. What are your future plans for you and your loved one?	1. How did you feel (cognitive, attitudinal, affective) when the doctor informed you that your loved one was diagnosed with depression? 2. How has your loved one's illness affected your work, life, and social life? 3. Has there been any change in how you and your loved one get along since you got sick? What are the changes? 4. What efforts have you and your loved ones made to cope with the changes brought about by the disease? What are the effects? 5. In what ways do you support your loved one during the treatment process? 6. What are your future plans for you and your loved one?

team. After the data were organized, the two made comparisons. If there were inconsistencies, they discussed them and, if necessary, communicated with the interviewees to seek evidence and ensure their understandings were accurate. To ensure the trustworthiness of the study, quality criteria, such as credibility, transferability, dependability, and confirmability, were systematically applied. Strategies included member checking, where participants confirmed the researchers' interpretations of the data, and analyst triangulation, involving multiple researchers in the data analysis to reduce bias. An audit trail documenting all analytical decisions was maintained to enhance dependability, and the COREQ checklist was used to ensure comprehensive reporting.

3. Results

Analysing the study results, we identified four themes and 12 subthemes (Table 3).

3.1. Theme 1: delays in medical care

3.1.1. Delays in medical decision-making

Delay in medical decision-making refers to the time between the onset of symptoms and the decision to seek treatment. Several patients in this study experienced delays in medical decision-making due to a lack of knowledge, stigma, and attempts at self-healing.

Patients and spouses lacked effective channels and professional guidance, which led to insufficient knowledge about the disease that had been previously acquired. A1: "I knew nothing about this disease, I didn't know what it was. After checking online and consulting my close friends, I thought about suicide many times." A7: "I thought it was due to menopause, I didn't know anything about the disease." B2: "We didn't know about psychiatry before we got sick[,] and we didn't know we should see a psychiatrist for depression."

Three participants expressed that they could not accept the diagnosis of mental disorder and refused to come to the psychiatry department for fear of discrimination and rejection from the public. A7: "I saw many departments before I came to psychiatry for treatment, and at the beginning I thought that it was a deficiency of vigour and energy, and I resisted to come to see a psychiatrist, and that only crazy people see psychiatrists." B2: "At that time when my lover was diagnosed with depression, she was adamant about not coming for treatment, afraid of being known by others, we did a lot of work on her." B4: "When my wife was diagnosed with mental illness, the first reaction was that it was unacceptable, I think that normally people should have organ-based pathologies, and whichever organ has a problem is treated, such as headaches. However, suddenly, it was a mental problem, and for a moment, it was still unacceptable because she was usually very relieved. Suffering from mental illness, I feel that my friends look at her differently."

Some patients with depression or their spouses attribute their depression to their state of mind and attempt self-adjustment to achieve a cure. A9: "I suffer

Table 3. Dualistic perspectives on the illness coping experiences of patients with depression and their spouses.

Themes	Subthemes
Delays in medical care	Delays in medical decision-making
	Delays in in-hospital care
Spousal maladjustment	Perceived stress of the illness
	Role conflict
	Negative emotions
Coexistence of positive and negative dyadic coping strategies	Shared coping
	Positive communication
	Emotional support
	Negative communication
	Overprotectiveness
Confusion and needs	Fear of illness prognosis
	Desire for continuity of care

from low mood and insomnia, and my son tells me to hang in there, saying that it's not a big deal and I don't need to be treated, but I feel very bad every day." B1: "At first I thought the disease was no big deal, the main thing was to adjust my mind, and the disease would naturally get better if my mind was good." B7: "At that time, the doctor said she might have depression, I let her not go to work, I thought it might be stress, rest at home for a period of time will be better, but it has been back and forth."

3.1.2. Delay in in-hospital care

The main reasons for delay in receiving in-hospital care were misdiagnosis and underdiagnosis. Four participants reported being physically and mentally exhausted from bouncing from department to department in their local hospitals before getting specialized care. A9: "Every time I went to the local hospital, I was given a couple of sleeping pills, and it was only when a psychiatrist from a large hospital came to our local area for a charity visit that he considered it to be depression and advised us to go to the psychiatry department." B1: "My wife started to experience discomfort in January, and it was not until July that she was diagnosed with depression." B3: "The consultation process went through many departments." B7: "Nothing was wrong with the hospital tests; the doctor said it might be menopause, but it kept coming back and forth when I went home."

These delays revealed a systemic gap in mental health education and support, particularly in rural areas where stigma and misdiagnosis could exacerbate the problem. The spouses' narratives demonstrated their crucial role in breaking the barriers to healthcare access, providing potential entry points for targeted interventions that engage both partners.

3.2. Theme 2: spousal maladjustment

3.2.1. Perceived stress of the illness

Spouses' perceived stress of the illness changes dynamically during the patient's consultation, weakening or strengthening as the patient's disease improves and worsens. B3: "I'm in a better mood when she gets better." B5: "I was so worried and scared that I was afraid that if I couldn't get a good cure, the consequences would be so serious that I couldn't even think about it, and I couldn't help him even if I wanted to. Now that I see him getting better day by day, I am less stressed." B9: "I didn't sleep well after she got sick, and I had to get up and look at her many times every night to see if she was asleep."

3.2.2. Role conflict

When the patient is diagnosed with depression, the spouse needs to face the double pressure of caring for the patient and the family, which leads to the inability to complete the adjustment of roles in a short period. B1: "In the past, my wife used to be in charge of the child's education, but now that she is sick, I come to be in charge of the child's education, and I am inexperienced, and I often quarrel." B3: "The impact of my wife's illness on me is that I have pushed off all my business at work this month and can't go to work, specializing in taking care of her." B4: "Now that he is sick, I have to take care of him, my grandchildren have no one to take care of them, my daughter is tired and often takes time off from work, and the family is very tense." B7: "I'm the backbone of the family, I can't go to work after my wife got sick, the economy suffers on top of my work, and I need money to see a doctor."

3.2.3. Negative emotions

Spouses, as primary caregivers, are affected by the patient's disease symptoms, family factors, and other negative emotions such as helplessness, worry, anxiety, sadness, and depression. B3: "I was helpless when my wife suffered from depression, and I was worried that she would commit suicide." B4: "When my wife was diagnosed with mental illness, the first reaction was still unacceptable, asking friends everywhere, checking on the Internet, and a bit of a breakdown." B6 hid her face and cried and broke down emotionally when she talked about the patient's condition, "The feeling was really like the sky was going to fall." B7: "She has this disease now, she has to accept it or not, so what can she do?" B8: "I was also very anxious after he got sick[,] and my hair turned a lot grey."

The dynamic stress perceived by spouses highlighted the bidirectional nature of emotional strain in the dyad, emphasizing the need for interventions that address shared stress regulation. Role conflict reflected the tension between traditional caregiving expectations and the demands of mental illness, suggesting that structured role-reassignment strategies could ease this burden. Negative emotions, such as helplessness and frustration, stem from a lack of resources or knowledge, indicating the need for spousal counselling and support systems.

3.3. Theme 3: coexistence of positive and negative dyadic coping strategies

3.3.1. Shared coping

Although the illness brought a huge shock to the family, they chose to face it together and share the stress. A1: "We used to do the housework together as a couple, but after I got sick, it was my husband who did it all." A4: "As a man, he took all the stress." B3: "I have been with her since she got sick, going around to see doctors for treatment, and my intention for the rest of my life is to stay with her for active treatment." B7: "I try to do 90% of what I promise, whether it's out of concern for the patient or the other family members."

3.3.2. Positive communication

Some patients took the initiative to share their experience of illness with their spouses, and their spouses also changed their communication style, which both relieved stress on the partners and increased their intimacy. A3: "He cared more about me after I got sick, encouraged me verbally, told me to have a good mindset, and took me for a walk and around the neighbourhood, and never complained about it." A4: "After this illness, we rethought the way of getting along and communication between husband and wife, and our relationship has become better instead." B2: "At that time when my lover was diagnosed with depression, I wanted to actively give him treatment, but she was adamant that she would not be treated, and I did a lot of work with her before she came for treatment. My loved one and I got along with each other. Compared to before I was sick, I became more proactive and took the initiative to care for her."

3.3.3. Emotional support

Depression is a type of affective mental disorder, and emotional support from spouses during treatment gives individuals more strength to overcome the disease. A4: "I was a bit negative after I got sick this time, and my husband stayed with me all the time, embracing me and encouraging me when I was feeling down, which gave me the courage to overcome the disease." A5: "My wife is particularly good to me, inseparable, although she is not good at talking, she is not impatient with anything I say, does not complain, and listens carefully to every word I say, which gives me emotional release." B7: "When my wife was sick, I was working outside and couldn't come back right away, so I called her and chatted with her for more than an hour."

3.3.4. Negative communication

Negative communication between some patients and their spouses and the stress of the disease may lead to a loss of intimacy between the couple, lack of communication, and excessive complaining. A1, while crying, said, "My husband initially said that I was moaning about nothing and did not understand. When said, confided in him about work and illness, he downplayed it every time." A6: "I usually don't usually tell my wife about any stress at work[,] and we basically don't communicate on a spiritual level." B4: "I just can't talk and don't know how to care for her." B6: "There are some behaviours that I really can't accept after he gets sick[,] and I scold him."

3.3.5. Overprotectiveness

To relieve each other's emotions and stress, individuals with depression or spouses often adopt ways to protect the other person, such as concealing their illness, being careful, and ignoring their own feelings. A7: "I usually do not tell my husband when there is something bothering or stressing me. My husband works at heights on construction sites, and I worry about him, so talking about it does not help." A9: "My partner had a brain haemorrhage before, and I do not dare to talk to him when I am sick for fear of affecting his health." B3: "Speaking very carefully now, unlike before when I yelled at her, I don't even dare to do so now, for fear of irritating her in case." B4: "I have to over-control my emotions now[;] I have to accommodate her and not stimulate her bad emotions."

The interaction between positive and negative coping strategies highlighted the fluidity of dyadic relationships under strain, emphasizing directions to reinforce adaptive coping mechanisms. For instance, the development of emotional support was linked to increased intimacy and resilience, suggesting that couples' therapy focusing on emotional attunement could be beneficial. Conversely, negative communication or overprotectiveness will result in maladaptive patterns that can erode trust and intimacy, reflecting the importance of training couples in constructive conflict resolution and balanced emotional expression.

3.4. Theme 4: confusion and needs

3.4.1. Fear of illness prognosis

Patients' and spouses' fear of illness prognosis gradually increased with further knowledge of depression during consultation and treatment of the disease. A1: "After I got sick, I felt guilty to my family in my heart, and I was even more worried that I wouldn't get well in the future and dragged my family down, but I couldn't do anything about it." A3: "I am afraid that I won't get well for a while, and I also feel that my body is not as good as before, and my mental aspect and working ability are not as good as they used to be, and I am also worried that it will have some impact on my family and life in the future." A7: "I am currently worried about the prognosis of the disease; I have been taking medication off and on since the first attack, and I am worried that the disease will recur." B8: "We don't have any plans for the future, we don't know if the disease can be cured, let alone what the future is like. Will psychiatric medication have any long-term effects?"

3.4.2. Desire for continuity of care

Patients with depression and their spouses were confused about how to cope with the long-term management of their illness during the recovery period. A9: "I live in a remote rural area, it is inconvenient to come to a big hospital for medical treatment, and what should I do if I can't buy medicines locally after being discharged from the hospital? What should be done if my illness fluctuates?" B6: "We don't have any plans for the future." B7: "I will take my beloved with me when she is discharged from the hospital and go to the coast to work. At present, I am most worried about outpatient review and prescription of medicines; what if my condition flares up?"

The pervasive worry about prognosis revealed not only emotional vulnerability but also a critical gap in continuity of care, particularly for long-term management and accessibility to medication in rural settings. Participants' confusion about managing the illness highlighted the need for a dyadic intervention model, including education and long-term care planning for both patients and spouses. These findings suggested that a holistic approach to care, integrating medical, emotional, and logistical support, could significantly alleviate confusion and strengthen coping strategies.

4. Discussion

In this study, we demonstrated that individuals with depression face significant delays in seeking medical treatment, aligning with findings by Dietrich et al. (2017). Participants in our study experienced delays in medical decision-making due to a lack of disease knowledge, fear of stigma, and attempts at self-healing (e.g., attributing symptoms to menopause or stress). For instance, one patient remarked, "I knew nothing about this disease … I thought about suicide many times" (A1), while another resisted psychiatric care due to beliefs that "only crazy people see psychiatrists" (A7). These delays were compounded by systemic issues, including misdiagnoses in non-psychiatric departments, as highlighted by participants who reported feeling "physically and mentally exhausted from bouncing from department to department." These results mirror broader literature showing that lack of knowledge is among the most common barriers for seeking medical treatment (Dietrich et al., 2017; Thompson et al., 2004; Wang et al., 2023), particularly in regions such as China, where recognition of depression remains low (Li & Reavley, 2020) and mental health resources are scarce (Wang et al., 2022).

Our findings reveal dynamic, bidirectional stress patterns in which spousal distress both affects and is affected by patient symptoms (e.g., B3's helplessness, B4/B6's breakdowns), corroborating evidence that such stress impairs patient well-being and recovery (Weitkamp et al., 2021). The burdens faced by spouses of patients with depression encompass significant physical, psychological, and social stressors that critically influence the course and treatment of the illness (Donato et al., 2023). While current research predominantly focuses on individual experiences, our results demonstrate how role conflicts (B1's childcare struggles, B7's financial strain) and cultural factors in China exacerbate these dyadic challenges. These research findings highlight the need for expanding interventions such as Hirota et al. (2023) active listening approach to address systemic gaps, integrating emotional support with practical strategies for role redistribution and strain management within couple-centred frameworks.

The findings of this study reveal a complex interplay between positive and negative coping strategies among couples facing depression. These results align with and extend existing literature on dyadic coping, relationship dynamics, and psychological adjustment in the context of chronic illness and mental health challenges.

Our findings highlight that positive coping strategies, such as joint confrontation, positive communication, and emotional support, play a critical role in fostering resilience and strengthening relationships. Similarly, Falconier et al. (2015) found that positive communication and mutual support significantly enhance relationship satisfaction, particularly in stressful contexts (Falconier et al., 2015). Our results further support the idea that adaptive mechanisms, such as shared problem-solving and emotional reassurance, contribute to better psychological adjustment, as outlined in Berg and Upchurch (2007) developmental-contextual model of couples coping with chronic illness (Berg & Upchurch, 2007). On the other hand, our study also identified negative coping strategies, such as negative communication (e.g., complaining, neglect, indifference) and overprotectiveness, as significant sources of strain in relationships. It has been found that criticism and neglect in couples dealing with depression can exacerbate relationship dissatisfaction (Benazon & Coyne, 2000). Additionally, a study found that negative coping strategies, including overprotectiveness and avoidance, can undermine relationship functioning, further corroborating our observations (Papp & Witt, 2010). The dual impact of coping mechanisms—where some couples experience improved intimacy while others encounter strain—underscores the nuanced role of coping strategies in shaping relationship dynamics.

A key finding of this study is the importance of active participation in caregiving and open communication in providing emotional reassurance and a sense of security. These findings align with Regan et al. (2014), who demonstrated that dyadic coping strategies, such as shared caregiving and open dialogue, are associated with reduced anxiety and depression in couples facing chronic illness (Regan et al., 2014). Similarly, a study emphasized that while dyadic coping can strengthen relationships, it can also create emotional burdens, particularly when one partner feels overburdened by caregiving responsibilities (Badr & Acitelli, 2017). Our findings reflect this duality, as some couples reported improved intimacy through shared coping, while others experienced strain due to the emotional toll of caregiving.

Conversely, negative coping strategies, including poor communication and overprotectiveness, contributed to relationship tensions and emotional distress. Participants reported experiences of being misunderstood, neglected, or emotionally isolated, which exacerbated their psychological suffering. Overprotectiveness suggests an attempt to shield one another from distress but may inadvertently hinder emotional expression and mutual understanding. Prior research has indicated that overprotective behaviours can lead to increased dependency, reduced autonomy, and heightened frustration, weakening relational bonds. As a chronic disease, depression requires long-term treatment. After discharge from the hospital, more symptoms and social functioning problems must continue to be addressed by medication and rehabilitation training (Belge et al., 2023; Beutel et al., 2023). Previous studies have improved the problem-solving ability and treatment adherence of patients with depression through the continuous intervention of the Internet (Castro et al., 2018; Ibeneme et al., 2022). These findings underscore the necessity of balanced support strategies for emotional expression without fostering excessive dependence or avoidance.

The findings of this study reveal that both patients with depression and their spouses experience significant uncertainty regarding the prognosis of the disease, which intensifies as they learn more about depression during treatment. This uncertainty manifests as fears of persistent symptoms, relapse, and declining abilities, leading to heightened feelings of guilt, helplessness, and caregiver burden. Participants emphasized the need for structured psychoeducation programmes to provide clear information on depression management and coping strategies, a recommendation supported by Lukens and McFarlane's (2004) study, which demonstrates that psychoeducation reduces uncertainty and improves coping skills for patients and families (Lukens & McFarlane, 2004). Addressing this uncertainty is critical, as it can otherwise contribute to psychological distress, reduced treatment adherence, and strained relationships.

Additionally, participants highlighted the lack of accessible and continuous mental health care, particularly in remote areas, where challenges in securing medication and attending follow-up appointments exacerbate anxiety about the future. The absence of clear post-hospitalization care plans further compounds this issue, leaving many unprepared to handle potential relapses. These findings are consistent with the existing literature on integrated care models, including telemedicine and collaborative care, which have been shown to improve treatment adherence and outcomes (Katon et al., 2010). This study underscores the need for comprehensive continuity of care models that incorporate psychoeducation, digital health interventions, and community-based support to address uncertainty, enhance long-term outcomes, and provide sustained support for patients with depression and their caregivers.

5. Practical implications of the study

5.1. Strengthening disease knowledge education

Education about the disease is key to improving the rate of depression consultation, although it requires considerable human, financial, and material resources. Knowledge about depression, including its prevention and treatment, should be spread among all citizens, especially among the spouses of those currently experiencing depression. Disease education can be strengthened in various ways by broadening disease knowledge publicity channels, increasing the content of disease knowledge publicity, and improving the quality of publicity to reduce prejudice against mental illnesses and improve awareness of medical consultation. Disease education should be tailored to local conditions and individuals. Targeted publicity content and methods should be explored, such as reducing the stigma among urban populations and developing simple and easy-to-understand publicity materials for those with low educational attainment, such as videos, drawings, and pamphlets. In addition, all primary hospital departments should learn about mental health and improve their ability to recognize depression. Non-psychiatrists should actively conduct psychological testing in outpatient clinics for patients with somatic complaints. However, negative test results rule out depression and other mental illnesses, and artificial intelligence-based aids can be used to improve the efficiency of depression diagnosis. Thornicroft et al. (2017) emphasized the role of primary care in addressing depression and the need for innovative solutions, such as AI-based tools, to improve diagnosis and treatment, which aligns with our recommendation to train non-psychiatrists and integrate mental health education into primary care (Thornicroft et al., 2017).

5.2. Attention to the physical and mental health of the spouse

Medical staff should address the physical and mental health of spouses caring for patients with depression, as interviews revealed that spouses often experience stress due to the patient's lack of understanding of their condition, leading to feelings of loneliness and helplessness. Encouraging spouses to actively participate in treatment—such as attending meetings and communicating with healthcare providers—can empower them and foster a collaborative care environment, reducing caregiver burden. Additionally, nurses should provide emotional support, including comfort and encouragement, to help spouses feel respected and supported. These findings align with studies by Caqueo-Urízar et al. (2014) and Van Wijngaarden et al. (2004), which emphasize the importance of family involvement and emotional support in improving caregiver well-being and treatment outcomes (Caqueo-Urízar et al., 2014; Van Wijngaarden et al., 2004). Implementing these strategies can alleviate caregiver burden and enhance the overall well-being of both patients and their families.

5.3. *Explore binary intervention strategies centered on couples*

Binary coping is a coping based on binary relationships. Although no interventional research has been conducted on binary coping for depression, some lessons can be learned from binary coping for other diseases. The influence of positive binary intervention on disease recovery far exceeds that of individual coping. Thus, medical personnel should actively improve the level of binary coping in patients with depression and their spouses, which can be carried out by strengthening binary coping skills and enhancing binary coping resources. Binary coping skills include communication, problem-solving, and emotion regulation skills. Binary coping resources refer to support and help from family, friends, co-workers, and the community, including emotional, informational, and material support. These can help patients and their spouses reduce their loneliness and helplessness and enhance their ability to cope with difficulties. Bodenmann (2005) found that dyadic coping strategies, such as joint problem-solving and emotional support, significantly improve relationship satisfaction and reduce stress in couples facing chronic illness (Bodenmann, 2005). Similarly, a study demonstrated that dyadic coping enhances resilience and reduces psychological distress, underscoring its potential for improving outcomes in depression (Falconier et al., 2015).

5.4. *Improve the extended service outside the hospital*

Most patients with depression and their spouses expressed confusion about the long-term management of the illness, highlighting a strong desire for professional assistance. Continuity of care, which ensures a smooth transition from hospital to home or community, can address this issue effectively. Multidisciplinary collaboration involving doctors, psychological counsellors, social workers, and rehabilitation therapists is particularly conducive to improving patient adherence and alleviating depressive symptoms. Nurses can play a pivotal role in exploring continuity of care service models based on “Internet +” technology, forming professional teams that integrate hospitals, communities, and families. This model would create a network service combining diagnosis, medication counselling, psychological support, and nursing guidance.

Mobile application programs could also facilitate online and remote consultations, providing patients and their spouses with comprehensive, on-demand rehabilitation support. However, compared with conventional continuity of care, the continuity of care service based on “Internet +” is more helpful for the recovery of patients with mental disorders (Mantani et al., 2017). It has been demonstrated that integrated care models, including telemedicine and multidisciplinary collaboration, significantly improve treatment adherence and outcomes for patients with depression. Similarly, Fortney et al. (2013) highlighted the effectiveness of technology-based interventions in delivering accessible and personalized mental health care, particularly for individuals in underserved areas (Fortney et al., 2013).

6. Limitations and recommendations for future research

This study provides insights into the dualistic coping experiences of individuals with depression and their spouses. However, certain limitations should be acknowledged. The study was conducted in a single tertiary hospital in southwest China, which may limit the generalizability of the findings to other settings, such as community hospitals or rural healthcare facilities. Future research should replicate this study across diverse geographical regions and healthcare institutions to ensure broader applicability of the results. Moreover, the sample size was small, which may not fully capture the range of coping experiences among individuals with depression and their spouses. Expanding the sample size and incorporating a more diverse participant pool—including different socioeconomic backgrounds, cultural contexts, and stages of illness—would enhance the robustness of the findings.

Additionally, this study employed a qualitative approach, which provides in-depth insights. While data saturation was reached in this qualitative study, the findings remain context-specific and may not be universally applicable. Future research should complement qualitative findings with quantitative methodologies, such as surveys or longitudinal studies, to assess dyadic coping patterns and their impact on treatment outcomes.

The study primarily focused on the subjective experiences of individuals with depression and their spouses without incorporating healthcare providers' perspectives. Further research should explore the viewpoints of mental health professionals to gain a comprehensive understanding of the challenges in implementing dyadic coping interventions within the healthcare system. Finally, while this study highlights the importance of positive dyadic coping, the effectiveness of targeted dyadic interventions remains to be fully validated. Future research should design and implement intervention programmes tailored to couples coping with depression and evaluate their efficacy in reducing caregiving stress, enhancing relationship satisfaction, and improving mental health outcomes for both patients and spouses. By addressing these limitations, future studies can contribute to the development of evidence-based, culturally adaptable, and sustainable dyadic coping interventions that support individuals with depression and their families more effectively.

7. Conclusions

In summary, spouses play an important role in the diagnosis, treatment, and recovery of individuals with depression; at the same time, depression is a stressful family event that has significant physical and psychological effects on both patients and spouses. Positive binary coping not only enhances relationship satisfaction between patients and spouses but also reduces spousal caregiving stress and alleviates patients' depression. This finding suggests that therapeutic interventions should be implemented for couples with depression.

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Author contributions

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Data availability statement

The data that support the findings of this study are available from the corresponding author, L.L., upon reasonable request.

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