

Qualitative Study on Pre-established Medical Care Plan for Advanced Cancer Patients based on Dualistic Coping Theory

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Abstract: ***Objective:** To analyze advanced cancer patients and the factors that promote/hinder their participation in advance medical care plan (ACP), and to provide reference for the construction of ACP. **Methods:** Under the guidance of dualistic coping theory, qualitative research methods were used to select advanced cancer patients who were hospitalized in a first-class tumor hospital in Shaanxi Province from May 1 to June 30, 2026. Semi-structured interviews were conducted, and the interview data were analyzed by directional content analysis. **Results:** The advanced cancer patients and the factors promoting/hindering their participation in ACP were divided into 3 themes and 10 sub-themes. (1) Disease and death stress ACP awareness, including disease experience to promote the formation of ACP awareness, family responsibility to drive decision-making needs. (2) Realistic pressure and insufficient cognition hinder the advancement of ACP, including cultural taboos avoiding ACP issues, cognitive biases restricting ACP decision-making participation, and economic pressure weakening ACP discussion willingness. (3) Dual collaboration jointly shapes couples' ACP coping behaviors, including protective avoidance hinders ACP communication, protective buffer leads to two-way emotional depression, non-verbal companionship supports dual emotional coping, husband and wife roles complement each other to maintain family coping, and two-way empowerment improves disease coping resilience. **Conclusion:** At present, patients with advanced cancer and their participation in ACP have significant dual impact characteristics. Clinical ACP should be based on the core characteristics of localized family collective decision-making in my country, focusing on patients-dual core groups to implement collaborative intervention, abandoning solidified and single intervention, and establish a dynamic and phased ACP intervention system that adapts to the changes in patients' conditions, the psychological state of couples, and local family decision-making.*

Keywords: Pre-established Medical Care Plan, Advanced Cancer Patients, Dualistic Coping Theory, Localized family collective decision-making.

1. Introduction

As the number of cancer cases around the world continues to rise [1], ensuring the dignity of survival and death of end-stage cancer patients has become an urgent public health problem to be solved. Compared with the Western medical concept that focuses on individual independent decision-making, in Chinese culture, patients' diagnosis and treatment choices and end-of-life medical wishes are often not individual independent decisions, but the result of collective bargaining with the family as the core. advance care planning (ACP), as a medical intervention that respects patient autonomy, aims to help patients express their values, goals and preferences for future medical care when they are conscious, while reducing the decision-making burden of family members [2]. In the process of gradually advancing the ACP concept, research [3] pointed out that the medical decision-making of cancer patients is not an isolated event, but a dual interactive process closely related to their family members (especially agent decision-makers). The cultural characteristics of family-style medical decision-making are highly consistent. In the family care and medical system for patients with advanced cancer, it assumes the role of core care and agency decision-makers. The data shows [4] that 52.88% are the main caregivers of cancer patients. The dual coping theory breaks through the limitation of medical care research focusing on a single individual patient, and is highly compatible with the cultural characteristics of the overall family care in our country. Interactive behavior to jointly resist the multiple physical, psychological and life pressures

brought about by advanced cancer. Based on this, this study adopts qualitative research methods, supported by the dual coping theory, conducts in-depth interviews with advanced cancer patients and their participation in ACP, and systematically analyzes the promotion/hindrance factors of the two, aiming to optimize the clinical ACP intervention system, constructing an individualized intervention program that adapts to the dual needs of Chinese cultural background and families provides theoretical basis and empirical support.

2. Objects and Methods

2.1 Research Subjects

Using the purposeful sampling method and following the principle of maximum differentiation, the advanced cancer patients hospitalized in a first-class tumor hospital in Shaanxi Province from May 1 to June 30, 2026 were selected as the research objects, so that their age, education, The type of cancer of the patient is representative. Inclusion criteria: Patients: Age ≥ 22 years; Patients diagnosed with cancer by pathology or cytology; Cancer patients who survive with tumors and are diagnosed as tumors stage III and IV according to the international TNM tumor staging criteria [5]; The estimated survival time assessed by clinicians according to relevant survival analysis assessment tools is ≥ 6 months [6]; Know the condition and voluntarily participate in the study. Spouse: Have a legal relationship between husband and wife; According to the provisions of the "Regulations on the Administration of Medical Institutions" [7], it has the power

of medical agency decision-making; Care time ≥ 4 h/d, care time ≥ 1 month; Knowing the patient's condition and voluntarily participating in the study. Exclusion criteria: Patients: patients with language communication disorders and severe mental disorders; Condition/physical intolerance. Spouse: Presence of language communication disorders, severe mental disorders, disease/physical intolerance; Withdrawal criteria: (1) those who voluntarily withdraw

halfway; (2) Early discharge or death. Sample size is based on data saturation and no new topic. A total of 16 advanced cancer patients and their interviewees were included in this study. In order to protect their privacy, advanced cancer patients were numbered with P1-P16. See Table 1 for general information; For the application of N1 ~ N16 numbers, the general information is shown in Table 2, and the interviewees all informed consent and voluntarily participated in the study.

Table 1: General data of patients with advanced cancer (n = 16)

Num ber	Gender	Age	Education	Residence	Type of medical insurance	Per capita monthly household income (RMB)	Duration of disease diagnosis (years)	cancer type
P1	Female	55	Primary and the following	Town	Resident medical insurance	≤ 1000	2	gastric cancer
P2	Female	50	Junior high school	Rural area	Resident medical insurance	1000-3000	6	breast cancer
P3	Male	54	Junior high school	Town	Resident medical insurance	3000-6000	1	lung cancer
P4	Male	30	High school	Town	Employee medical insurance	3000-6000	3	lung cancer
P5	Male	65	Primary and The following	Rural area	Resident medical insurance	1000-3000	3	hepatocellular carcinoma
P6	Female	57	Junior high school	Rural area	Resident medical insurance	3000-6000	5	ovarian cancer
P7	Female	63	Junior high school	Town	Resident medical insurance	≥ 6000	1	cervical cancer
P8	Male	40	Bachelor degree or above	Town	Employee medical insurance	≥ 6000	2	esophageal cancer
P9	Male	47	Primary and The following	Rural area	Resident medical insurance	1000-3000	4	gastric cancer
P10	Female	58	High school	Town	Employee medical insurance	3000-6000	3	ovarian cancer
P11	Female	44	High school	Rural area	Resident medical insurance	3000-6000	2	cholangiocarc inoma
P12	Male	80	Primary and The following	Rural area	Resident medical insurance	1000-3000	8	colorectal carcinoma
P13	Male	45	Bachelor degree or above	Town	Employee medical insurance	≥ 6000	2	hepatocellular carcinoma
P14	Female	60	Primary and The following	Town	Resident medical insurance	3000-6000	4	breast cancer
P15	Female	59	Junior high school	Rural area	Resident medical insurance	3000-6000	5	gastric cancer
P16	Male	40	High school	Rural area	Employee medical insurance	3000-6000	2	lung cancer

Table 2: General information of patients with advanced cancer (n = 16)

Number	Gender	Age	Education	Residence	Degree of understanding of disease prognosis	Knowing the time of patient's disease diagnosis (years)	Duration of care (h/day)
N1	Male	55	Junior high school	Town	Not very knowledgeable	2	≥ 8
N2	Male	55	Junior high school	Rural area	General understanding	6	6-8
N3	Female	52	Junior high school	Town	General understanding	1	≤ 6
N4	Female	31	Junior high school	Town	General understanding	3	6-8
N5	Female	65	Primary and below	Rural area	Not very knowledgeable	3	6-8
N6	Male	58	Junior high school	Rural area	General understanding	5	≤ 6
N7	Male	65	Junior high school	Town	General understanding	1	≥ 8
N8	Female	39	Bachelor degree or above	Town	Know more	2	≤ 6
N9	Female	45	Junior high school	Rural area	General understanding	4	≤ 6
N10	Male	62	Junior high school	Town	General understanding	3	6-8
N11	Male	47	High school	Rural area	Know more	2	6-8
N12	Female	79	Primary and below	Rural area	Not very knowledgeable	8	≥ 8
N13	Female	45	Bachelor degree or above	Town	Know more	2	≤ 6
N14	Male	63	High school	Town	Know more	4	≤ 6
N15	Male	62	High school	Rural area	Know more	5	6-8
N16	Female	38	Junior high school	Rural area	General understanding	2	6-8

2.2 Research Methodology

2.2.1 Finalization of interview outlines

The theory of Dyadic Coping (Dyadic Coping) was proposed by psychologist Bodenmann [6] in 1995, which refers to the joint decision-making or response of both parties when facing a stressor. Among them, the System Interaction Model (STM) divides the coping strategies jointly adopted by both parties

into two dimensions: positive coping and negative coping. Advanced cancer patients and their promotion/barrier factors to participate in ACP can be analyzed in depth from the above dimensions. Based on the dualistic coping theory, the interview outline was drawn up by reviewing the previous literature. After conducting pre-interviews with two advanced cancer patients and the final discussion with the research group, the final interview outline was determined. The content is as follows. (1) After the researcher introduced ACP, what

do you think of ACP, death and signing ADs documents? (2) What did you use to start discussions on ACP, death and other related topics? (3) After being diagnosed with the disease, when you have some negative emotions, what measures do you generally take to relieve them? (4) What factors do you have to discuss with you about ACP, death and other issues? (5) When you try to talk about ACP, death and other topics, what behaviors will hinder your expression? (6) When you talk about ACP, what factors hinder you from discussing ACP and death together? (7) When you/learn that you/are sick, what is the response to the disease?

2.2.2 Methodology for data collection

Semi-structured interviews were used to collect data. Before data collection, a research group was set up, including 2 nursing postgraduates, 2 palliative care nurses and 1 master's tutor with more than 30 years of clinical work. All members of the expert group participated in the data collection, sorting and analysis after systematic qualitative research training. Before the interview, the interviewee established a good relationship with the interviewee, introduced the purpose of the study to them, and determined the place and time of the interview. The interview place was selected in the interview room of the department to ensure that it was quiet, relaxed and free from interference. The interview time was 30 to 40 minutes. Before the formal interview, promise to replace the name of the interviewee with a code and sign an informed consent form, and record the entire interview after the interviewee agrees. During the interview, the interviewer asks questions according to the interview outline, listens carefully, does not imply or induce, and uses methods such as rhetorical questions and follow-up questions to make the interviewees express their inner feelings; Clarify the concept of ACP when necessary, and repeat and summarize the statements of the interviewees; Observe and record the interviewees' facial expressions, emotional changes, movements and other non-verbal information.

2.2.3 Methods of Data Analysis

Two nursing postgraduates transcribed the recordings into text materials within 24 hours after the interview, and returned to the interviewees for verification. At the same time, guided by the STM model in the binary coping theory, they used directional content analysis [8] to independently read the text materials, and sorted them out and coded them. If they disagreed, they asked a third party to make a ruling. Data analysis steps: 1. Listen to the recordings and read the texts repeatedly; (2) The text data about patients with advanced cancer and their ACP coping were taken as the minimum analysis unit; Thirdly, according to the STM model, the positive coping dimension and negative coping dimension are taken as the theme classification outline; (4) Read text materials word by word and sentence by sentence, incorporate relevant content into corresponding themes, and form sub-themes after further analysis; 5. Establish the relationship between the text material and the theme and sub-theme.

3. Results

This study is based on the Systematic-Transactional Model (STM) in the binary coping theory [6] to analyze patients with

advanced cancer and their experience of participating in ACP. The results showed that ACP is not a decision-making behavior at the individual level of patients, but a dynamic process deeply affected by multiple factors such as disease progression, husband-wife relationship, cultural cognition, and economic pressure. Patients and patients have formed a complex two-way coping under the pressure of the disease. There are not only positive dual coping with support and coordination, but also negative dual coping with avoidance, depression and negative communication. Finally, it is summarized into 3 topics and 10 sub-topics.

3.1 Disease and Death Stress ACP Consciousness Awareness

3.1.1 Disease experience drives ACP awareness formation

With the recurrence of the disease, the prolongation of the treatment cycle and the gradual decline of physical function, patients and patients are aware of the irreversibility of the disease and gradually form a realistic perception of death. Especially after witnessing the death of a patient, experiencing treatment failure, or receiving poor prognosis information, the interviewees' sexuality towards end-of-life issues was obvious. Death awareness formed during the disease process is a core prerequisite for contributing to the patient's demand for ACP. Some patients actively consider issues such as ineffective medical intervention and good death, and look forward to communicating their medical choices through ACP. At the same time, in the process of care, I have gradually realized the pressure of medical choices that I may face in the future. P1: "My illness has lasted for three years, and my body is getting worse day by day. I know my physical condition in my heart, so I slowly think about it." N2: "The main reason is that her body is getting weaker and weaker. The last resident doctor said 'do a good job'." P6: "I have been sick for so many years, I have experienced chemotherapy and surgery, and the feeling of life and death is just around the corner." P12 people will always leave one day, and they will be able to see this disease, and death is no longer something they dare not mention. "

3.1.2 Family responsibilities drive decision-making needs

In addition to the survival threat posed by the disease itself, family responsibilities are another important driving force for doctors and patients to carry out ACP-related communication and discussion. Respondents repeatedly mentioned "don't want to drag down family members" and "don't add burden to children". Compared with the Western ACP concept with individual autonomy as the core, domestic people classify ACP more as family responsibility planning. Its core appeal is not simply to defend individual medical autonomy, but to reduce the decision-making pressure of family members and avoid family conflicts. In addition, some of them pointed out that they hope to clarify the medical wishes of patients in advance, so as to avoid differences and disputes among family members on issues such as emergency plan selection, treatment decision-making, and end-of-life care places in the future. P2: "I have been ill for so many years, and I have experienced chemotherapy and surgery. The feeling of life and death is in front of me. If I can write about your ACP, let me explain it clearly in advance, so that I can reduce the drag

on my family”; P4: “The children at home are still young, so I must plan in advance.” N3: “I can’t let him suffer in vain and bring down this family.”

3.2 Realistic Pressure and Insufficient Cognition Hinder the Advancement of ACP

3.2.1 Cultural taboos avoid ACP issues

Influenced by the local life and death culture, death and other related topics are regarded as negative and unlucky taboo content. This collective cultural cognition permeates the dual interaction between husband and wife, forming an inherent communication barrier. The understanding of life and death varies from person to person. Some interviewees are influenced by concepts such as “unknown life, how can you know death”, and are unwilling to think too much about death-related issues. At the same time, the widespread lack of death education in our country has aggravated this phenomenon [9]. In the results of this study, the interviewed couples generally constructed ACP as a “death signal” rather than a “care plan”, resulting in obvious resistance. N3: “Aren’t you giving me a man’s ‘sentence’?” P8: “It’s unlucky to talk about it, and I’m afraid it will be a prophecy.” N11: “We never talk about this kind of thing, it’s a taboo.” N10: “It’s just an old thought. I always feel unlucky to say too much, and I feel awkward.”

3.2.2 Cognitive biases limit ACP decision-making participation

Due to cognitive understanding bias, it is difficult for patients to truly integrate into the medical decision-making process, and the process of ACP communication and practice from the dual perspective of husband and wife is significantly blocked. The influence of multiple factors such as limited culture and cognitive bias has further exacerbated the communication gap between husband and wife, making it impossible to form effective ACP communication between husband and wife, and ultimately restricting the decision-making participation of both parties from the cognitive and interactive levels. N1: “Is it the same as a will?” P4: “ACP? Is it similar to arranging funeral affairs.” P12: “I don’t understand your words, isn’t this what to do when I die?” P3: “Less than half a year after I was diagnosed with the disease, someone suddenly talked to me about ACP and asked me to make a will. I think this matter is far away from me.”

3.2.3 Economic pressure weakens ACP’s willingness to discuss

When discussing medical decisions at the end of life, the core questions that respondents first think of are “whether treatment can be affordable” and “whether it is worth continuing to invest resources”. Severe economic pressure makes ACP no longer limited to decision-making choices at the medical level, but a complex issue of family resource allocation, which greatly increases the initiative and completion of ACP participation. N5: “Besides, the family’s financial situation is not good. When I think of the aftermath and follow-up treatment, I am full of money difficulties.” N8: “The income is only so small. When we talk about these things, we can’t get around it. What should we do?” N3:

“When it comes time to continue my life, I have to know his attitude.” N7: “Living on this income, if you really continue to govern, you can’t afford it at all.”

3.3 Dual Collaboration Jointly Shapes Couples’ ACP Coping Behaviors

3.3.1 Protective avoidance hinders ACP communication

This forms a typical “protective buffering” between husband and wife. This interaction is in line with the negative binary coping characteristics in STM, that is, although couples try to pressure each other, due to the lack of effective communication, they exacerbate emotional depression and relationship alienation. P5: “He immediately interrupted me, either waving his hand to prevent me from speaking, or deliberately changing the topic.” P9: “Sometimes as soon as I opened my mouth, he got up and went to the kitchen or the toilet.” N3: “I really couldn’t open my mouth. It was like being gouged out of my heart when I mentioned it.”

3.3.2 Protective buffers lead to bidirectional affective depression

In this study, both husband and wife are under great psychological pressure, but they tend to protect by hiding their emotions and expressing them. This “protective buffering” phenomenon with the original intention of protection is an adaptive negative coping strategy in the binary stress scenario of cancer families, and it is also a typical manifestation of the imbalance of ACP coping between husband and wife. P8: “When I feel uncomfortable, I feel bored and don’t say a word, for fear that she will follow.” N3 mentioned: “When I feel uncomfortable, I hide in the kitchen and cry secretly.” N6 said: “I never ask her,” Are you afraid? “, and she doesn’t ask me,” Are you tired? “, just carry it hard.

3.3.3 Non-verbal companionship supports binary emotional coping

This reliance on non-verbal companionship constitutes one of the important emotional interactions in Chinese families. Through non-verbal hidden companionship, the psychological pressure of both parties can be relieved, the emotional connection can be maintained, and the pressure brought by the disease can be coped with to a certain extent. N2: “She couldn’t sleep, so I pretended to be asleep, but I stayed up with her with my eyes open.” P4: “I dragged me out for a walk.” N4: “I just recognized one thing: take care of him day by day.” P7: “My wife advised me not to think too much and let me treat my illness well.” P4: “After crying, she went to check the information, asked the doctor, joined the patient group, and took me to the hospital.”

3.3.4 Couple’s complementary roles sustain family coping

This kind of “shared responsibility” of division of labor and cooperation is a benign dual coping strategy that is very adaptable to cancer families. Husband and wife do not need to rely on explicit emotional confessions, but can realize pressure through silent cooperation that performs their duties and works together under pressure. Sharing, responsibility sharing, and risk symbiosis can effectively balance the

two-way psychological and realistic pressure brought about by disease stress, and build a stable dual interactive form suitable for anti-cancer scenarios. N2: "I am responsible for running to the hospital and collecting money, and she is responsible for gritting her teeth to support it." P1: "Our old couple take good care of themselves and reduce the burden on our children." N13: "She will treat her illness with peace of mind, persist in carrying it through, and don't worry about anything else." P1: "Even if we take good care of ourselves, the children will be less stressed."

3.3.5 Two-way empowerment improves disease response resilience

This two-way positive response can effectively improve individual psychological resilience, relieve anxiety and decision-making pressure caused by disease stress, eliminate negative cognition caused by disease pain and unknown prognosis, and strengthen the overall stress resistance and disease adaptation level of the dual system. P8: "Let's persuade each other and say more soothing words." N4: "We both cheer each other up." P9: "We don't say soothing words on weekdays, relax our hearts." N11: "Let's fight together. There is nothing else to do." N15: "We have come here like this all our lives, that is, to support each other." N2: "When the person next to the pillow falls, you must stand up and help her walk together." P16: "I am stupid and can't say those good words. I feel at ease when he is there." N10: "Husband and wife are one, if we are good, this family will be good."

4. Discussion

4.1 ACP Participation Presents the Characteristics of Family Joint Decision-making from the Perspective of Dual Interaction

The results of this study show that the participation of advanced cancer patients in ACP is not entirely based on individual autonomy, but a common decision-making process gradually formed in the interaction between husband and wife and family relations. This suggests that ACP participation in advanced cancer patients in my country has distinct family-oriented characteristics, indicating that ACP is not a static document signing behavior, but a changing family negotiation process with disease progression. Ho et al. [10] pointed out that patients in the oriental cultural context are more inclined to regard end-of-life decision-making as a family matter, hoping to complete the final decision through family negotiation, rather than emphasizing absolute individual autonomy in Western medical ethics. Fan et al. [11] further pointed out that the "family-based" value in Confucian culture determines that Chinese patients place more emphasis on "family common interests" than individual absolute autonomy. Boerner et al. [12] pointed out that family members' awareness and participation in ACP largely affected the successful formulation and implementation of ACP. Zifen Li et al. [13] suggested respecting Chinese family culture, adopting "family-centered" co-decision-making, and further exploring the impact of family structure and relationships on the implementation of ACP. Therefore, future ACP clinical practice should break through patient autonomy, regard patients as a "care community", and build a family-centered ACP communication system.

4.2 Protective Buffer and Death Taboo Constitute the Negative Dualistic Coping Mechanism of ACP Communication

Studies [15] show that most patients and their families hold a taboo and fearful attitude towards death, and refuse to discuss end-of-life related topics. Horne et al. [16] summarized the attitudes of patients and their families towards death as follows: they do not face death until death comes, and patients and their families mainly adopt an evasive attitude. Although ACP discussions are emotionally stressful, studies have shown that they are necessary [17]. Based on the above results, it is suggested that medical staff should focus on identifying protective avoidance between husband and wife when carrying out ACP, and intervene in the fear of death discussion between both parties through progressive communication, emotional counseling and family support.

4.3 ACP's Willingness to Participate is Affected by Multiple Factors, and a Localized Support System Needs to be Established

Studies by Han Zhihao et al. [18] have shown that the constraints of the outlook on life and death and family affection, and the bias in the cognitive understanding of ACP and cancer can easily lead the main caregivers of advanced cancer patients to avoid ACP discussions. Studies [19] have shown that financial burdens affect cancer patients' treatment versus motivation to participate in care. In Wong [20]'s study, patients' insufficient understanding of treatment prognosis, medical expenses, treatment options, disease severity and other related knowledge is the main factor affecting patients' participation in the discussion in ACP. This is consistent with the results of this study. Studies [21-23] have shown that patients who expect to delay disease progression and control cancer symptoms by understanding the role of chemotherapy are more willing to participate in ACP discussions at the end of life. In studies such as Wu Lina [24] and Ren Xiaojing [25], patients with severe symptoms scored high on the cognitive acceptance of ACP. At the same time, the research results of Zhao Juanxu et al. [26] show that with the arrival of the terminal stage of the disease in advanced cancer patients, agency decision makers with a higher degree of understanding of the prognosis of the disease are more psychological about the approach of death, so they begin to obtain ACP from medical staff and other related information. Therefore, the implementation of ACP needs to combine the stage of disease and the state of psychological adaptation of patients, and adopt dynamic and phased communication strategies.

5. Summary

This study focuses on patients with advanced cancer and their current status of ACP implementation, and systematically explores the factors that promote/hinder their participation in the process. The study found that ACP practice in China has distinct localization characteristics, with family collective decision-making as the core, and patients and patients as the core dual decision-making subjects. Their cognitive attitude, psychological state and coordinated coping are the key factors that affect the promotion effect of ACP. Therefore, it is recommended that medical staff use popular language to carry out simultaneous education for couples, correct family

cognitive biases, and implement hierarchical collaborative interventions in combination with disease stages to improve family ACP acceptance and implementation effects.

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