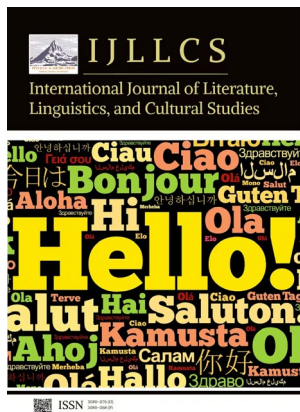




Article **Open Access**

From Shock to Restructuring: A Thematic Analysis of Chinese Patients' Diabetes Adaptation in an Online Peer Support Forum

Shuai Liu ^{1,*}, Xuanxi Dong ¹ and Chao Lu ¹



¹ University of Science and Technology Beijing, Beijing, China

* Correspondence: Shuai Liu, University of Science and Technology Beijing, Beijing, China

Abstract: Despite rapid growth of online health communities, little is known about how individuals with diabetes make sense of their condition through asynchronous peer discussion—particularly in non-Western contexts. Aim: This study provides an inductive thematic analysis of patient posts on the Sweet Home Diabetes Forum to uncover the experiential and social processes underpinning diabetes adaptation. Ninety-three posts were randomly sampled from “Type 2 Diabetes” sub-forum. Data were analyzed using reflexive thematic analysis, with iterative coding by two researchers and consensus discussions to ensure interpretive rigor. Three interlinked adaptation phases emerged: Psychological Adjustment: from initial shock and denial to acceptance and resilience-building; Daily Management: flexible dietary strategies, tailored physical activity, and ritualized medication practices; Life Restructuring: financial coping, career recalibration, and value reframing. Peer exchanges fostered collaborative expertise (“epistemic humility governance”) and collective identity reconstruction. These findings underscore the importance of online peer forums as phase-specific support arenas—providing critical emotional validation, collaborative skill-building, and life-planning resources—and extend chronic illness adaptation theory into a culturally specific, digitally mediated context.

Keywords: online peer support; diabetes adaptation; thematic analysis; reflexive analysis; chronic illness theory

Received: 12 August 2025

Revised: 18 August 2025

Accepted: 03 September 2025

Published: 09 October 2025



Copyright: © 2025 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Diabetes is a chronic metabolic disease characterized by persistently elevated blood glucose levels, which over time can cause severe damage to the heart, blood vessels, eyes, kidneys, and nerves. Globally, diabetes currently affects approximately 830 million people—a number that has quadrupled since 1990—with the fastest growth occurring in low- and middle-income countries [1].

A diagnosis of diabetes profoundly impacts individuals' lives, requiring extensive lifestyle adjustments and continuous self-management beyond clinical settings. Individuals with diabetes must develop a high level of medical knowledge, symptom management skills, and bodily awareness.

Peer support has emerged as a crucial component in managing diabetes, significantly differing from professional healthcare by offering emotional reassurance, practical advice, and shared experiences that can validate and empower individuals. However, traditional

peer support systems often prove insufficient, particularly for individuals facing geographic isolation, inconsistent service access, or a lack of subgroup-specific resources. Young adults, rural residents, and others navigating unique social or developmental challenges are frequently left without the necessary support systems to manage their condition effectively.

In response to these limitations, online support communities (OSCs) have grown significantly, particularly since the COVID-19 pandemic, which intensified the necessity for remote communication and support. OSCs provide valuable alternatives to traditional peer support through constant availability, anonymity, and ease of access, thus overcoming geographical and temporal barriers. Benefits of OSCs include emotional support, empowerment through shared experiences, and identity reinforcement, enabling individuals to manage their diabetes effectively and confidently in a culturally congruent and supportive environment.

Despite increasing recognition of the significance of online support communities (OSCs) in chronic disease management, empirical investigations focusing explicitly on diabetes-related forums remain limited, particularly within non-Western contexts. In China—home to the world's largest population of individuals diagnosed with diabetes—there is a critical need to examine how culturally embedded values, such as familial collectivism, reliance on traditional medicine, and indirect communication styles, shape the dynamics of peer support in digital settings.

The existing body of literature has primarily concentrated on broader online platforms, such as blogs or mainstream social media, and has predominantly utilized deductive methodologies grounded in Western theoretical paradigms. For instance, De Cock and Antaki analyzed how individuals with diabetes negotiate social expectations surrounding disease management in online discourse [2]. Similarly, Smedley and Coulson conducted thematic analyses to investigate the role of moderators within asynchronous support forums for individuals managing chronic illnesses [3]. However, such studies often reflect culturally bounded assumptions and may inadequately account for the specific cultural practices and interaction patterns observed in Chinese online health communities. Consequently, culturally specific patterns of peer interaction and support remain underrepresented in the literature and insufficiently incorporated into the theoretical models that inform digital health research.

The Sweet Home Diabetes Forum offers a distinctive and relatively unexplored source for examining diabetes adaptation within the Chinese sociocultural context. As the largest online diabetes platform in China—reportedly receiving approximately 200,000 daily visits and over 16,000 unique users each day—it provides extensive access to spontaneous, culturally situated discussions surrounding diabetes self-management. In contrast to Western forums, which often foreground individual autonomy and biomedical perspectives, Chinese platforms tend to incorporate cultural values emphasizing familial involvement, the integration of traditional Chinese medicine, and the circulation of collective experiential knowledge. These characteristics position the forum as a critical site for investigating culturally embedded adaptation strategies and the broader sociomedical dimensions of chronic illness management in China.

There remains a clear gap in inductive qualitative analyses of asynchronous online forums catering to diverse diabetes populations, particularly within Chinese cultural contexts where adaptation processes may differ significantly from Western patterns. Comprehensive understanding of the content shared by Chinese forum users—including both positive coping strategies and challenges—remains largely unexplored through bottom-up analytical approaches that allow themes to emerge naturally from the data rather than being imposed through predetermined frameworks.

Therefore, this study aims to address this gap by providing an inductive qualitative thematic analysis of messages posted to the Sweet Home Diabetes Forum by Chinese individuals affected by diabetes. Using Braun and Clarke's reflexive thematic analysis approach, this research adopts a data-driven methodology that allows participants' own

voices and experiences to shape the analytical framework, rather than imposing predetermined theoretical categories [4]. By exploring the diverse ways in which Chinese individuals with diabetes utilize online peer-support forums within their specific cultural context, this research seeks to provide new insights into culturally-embedded practical and emotional benefits of virtual peer interaction, informing future support strategies and interventions that are sensitive to Chinese cultural values and healthcare contexts.

2. Methods

2.1. Data Collection

Data were collected from Sweet Home Diabetes Forum, China's largest asynchronous, volunteer-moderated discussion forum dedicated to diabetes peer support. This platform has been recognized in emerging research as a significant online health community for Chinese diabetes management.

"Sweet Home" is an online health interaction platform dedicated to diabetes, which is internally divided into several sections based on discussion topics, such as "Type 1 Diabetes" and "Type 2 Diabetes." This study focuses on the "Type 2 Diabetes" section for the following reasons: First, it is one of the most active sections on the platform, with discussions covering a wide range of topics including medication usage experiences, adverse reaction reports, and blood glucose management strategies, thereby offering multidimensional and authentic user-generated data. Second, this section primarily centers on the daily management and treatment of Type 2 Diabetes, with a diverse user base comprising patients, family members, and healthcare professionals. Patients often refer to others' experiences in similar contexts to inform their own medication decisions [5]. Lastly, the platform maintains a data quality assurance mechanism through content review and reporting features, which help filter out false information and ensure relatively high data reliability.

For this study, we collected 2,580 popular user-generated posts from this section of the platform, spanning from January 2008 to July 2022. After excluding posts made by family members and healthcare professionals, a total of 930 posts authored by patients were retained for analysis. Following the systematic sampling methodology outlined, we randomly selected 10% of the posts. In total, 93 posts were included, consistent with similar qualitative forum analyses [6]. This sampling proportion ensured inclusion of both brief exchanges and extended discussions across the 14-year timeframe. All selected posts were preserved with original formatting to maintain contextual authenticity for subsequent thematic analysis.

2.2. Ethical considerations

Blogs posted on public social media sites are exempt from ethical approval or clearance [7,8]. Additionally, informed consent is not required from bloggers, as the blogs are publicly accessible and not password-protected [9]. However, ethical considerations remain. To protect the privacy of diabetes patients, pseudonyms were used, and any identifiable information was anonymized or removed.

2.3. Analysis

The two research team members collaboratively conducted the analysis of forum posts using reflexive thematic analysis [4]. We acknowledge our active role in the interpretive process, recognizing how our professional backgrounds in health psychology and digital health influenced data interpretation. During initial coding, we explicitly discussed our assumptions about diabetes management and online communities, documenting how these perspectives shaped our analytical approach.

Initially, both authors independently conducted preliminary coding of the entire dataset—one author using NVivo software, and the other coding manually. Following independent coding, the authors compared their initial codes through regular virtual meetings,

maintaining detailed records of our analytical decisions and the rationale behind code development. Any discrepancies or differences in interpretation were explicitly discussed and resolved collaboratively, with consensus reached through iterative dialogues and mutual agreement rather than inter-rater reliability calculations, consistent with reflexive thematic analysis principles.

Codes were then organized collectively into thematic clusters using MindMeister, an online mind-mapping tool, facilitating clear visualization of relationships and thematic structures. This iterative process involved repeated revisiting of both the raw forum data and emerging themes, ensuring accuracy, consistency, and a comprehensive representation of the forum data. We regularly returned to the original forum posts to verify our interpretations and ensure our themes remained grounded in participants' actual experiences.

3. Results

3.1. Overview of Findings

Through thematic analysis of forum posts from participants with diabetes, three major themes emerged that characterize the adaptation process. These themes were developed through iterative coding, refinement, and validation procedures as described in the methods section.

This study reveals three major themes that characterize the adaptation process of individuals living with diabetes, as summarized in Table 1. The first theme, "Psychological Adaptation and Emotional Journey," explores the emotional responses to diagnosis, the crucial role of support networks, and the development of coping mechanisms that form the psychological foundation necessary for successful diabetes management. The second theme, "Practical Management Strategies and Daily Adaptations," examines how individuals incorporate dietary management, physical activity, and medical treatments into their daily routines once psychological adaptation has begun. The third theme, "Socioeconomic Impacts and Life Planning," addresses the broader consequences of diabetes on financial stability, career trajectories, and long-term life planning. Together, these themes illustrate the multifaceted nature of diabetes adaptation, highlighting both challenges and strategies for effective management across psychological, practical, and socioeconomic domains.

Table 1. Summary of Thematic Framework.

Major Theme	Subthemes	Brief Description
1. Psychological Adaptation and Emotional Journey	1.1 Initial Diagnosis Response and Acceptance Process 1.2 Support Systems and Their Functions 1.3 Developing Psychological Resilience	The emotional and cognitive processes individuals undergo as they come to terms with their diagnosis and develop psychological resources for coping
2. Practical Management Strategies and Daily Adaptations	2.1 Dietary Management and Nutritional Knowledge 2.2 Physical Activity Integration 2.3 Medical Management and Treatment Integration	The concrete strategies and routine adjustments individuals make to manage their condition in everyday life
3. Socioeconomic Impacts and Life Adaptation	3.1 Financial and Economic Adaptations 3.2 Career and Long-term Life Planning	The broader life consequences of diabetes and how individuals restructure their economic and professional lives

3.2. *Psychological Adaptation and Emotional Journey*

Psychological adaptation forms the foundation for successful diabetes management, as emotional acceptance and resilience must precede effective practical management strategies. This theme explores the emotional and psychological processes individuals experience when diagnosed with diabetes, from initial shock through acceptance and adaptation.

3.2.1. Initial Diagnosis Response and Acceptance Process

A diagnosis of diabetes often initiates a series of emotional reactions that can significantly shape an individual's capacity to come to terms with the condition and engage in effective self-management. This sub-theme examines the journey from initial shock to gradual acceptance.

Upon diagnosis, many individuals experience intense emotional shock characterized by fear, disbelief, and confusion. This emotional response often serves as a protective psychological mechanism that temporarily shields individuals from the full impact of their diagnosis.

P7 (female, 42) vividly described this overwhelming experience: "The day I was diagnosed with diabetes, I felt like the sky was falling. I was filled with fear and couldn't believe the doctor's diagnosis."

This account illustrates how receiving a diagnosis may trigger an immediate emotional disturbance. The severity of this initial response often influences the course of subsequent adaptation, with more intense emotional reactions typically necessitating extended periods of adjustment and greater psychosocial support. Several participants reported comparable experiences, emphasizing the disruptive impact of the diagnosis and the need for considerable emotional processing prior to engaging with the practical dimensions of diabetes management.

As the initial shock diminishes, individuals often turn to healthcare professionals for confirmation and reassurance in order to make sense of their diagnosis. This professional input frequently functions as an essential link between denial and acceptance, providing the authoritative confirmation needed to begin the adaptation process.

P12 (male, 51) explained this turning point: "The doctor said, 'With so much insulin given to you, if you didn't have diabetes, you would have died from hypoglycemia already!' So, I had no choice but to believe it."

Medical authority often initiates the process of acceptance, yet this shift does not necessarily arise from internal readiness. For many participants, encountering the clinical reality became a decisive moment—where denial could no longer be sustained. However, while professional validation supports initial acknowledgment, it often requires additional time and support to fully address the emotional dimensions of diagnosis. This pattern reinforces the critical role of empathetic, clear, and context-sensitive communication from healthcare providers during this transitional phase, as patients begin to navigate the complex emotional process between denial and acceptance.

3.2.2. Support Systems and Their Functions

Support networks play a crucial role in helping individuals navigate the emotional challenges of living with diabetes. This sub-theme focuses specifically on external sources of support and how different types of support—emotional, informational, and practical—facilitate adaptation.

Family members, such as parents and spouses, offer various forms of support that integrate emotional encouragement with tangible, day-to-day assistance. This integrated support system serves as a fundamental basis for both emotional adaptation and the effective management of the condition.

P3 (female, 38) shared her experience of emotional support: "When I was in the hospital, my dad kept comforting me, telling me not to be afraid. His words slowly calmed me down."

P19 (female, 45) highlighted the practical dimension: “On this journey with diabetes, having a caring spouse is so important. My husband looks up information about diabetes management every day and gives me encouragement.”

These accounts underscore the multifaceted nature of familial support. On an emotional level, family members provide psychological stability during periods of increased vulnerability. Functionally, they contribute to the routine tasks associated with disease management. Several participants noted an evolution in these roles over time, with relatives initially offering emotional comfort and gradually assuming more direct involvement in the management of the condition. This integration of emotional and instrumental assistance fosters a more comprehensive care environment—one that addresses both psychological and practical demands, while simultaneously reinforcing familial bonds and distributing caregiving responsibilities more equitably.

Building upon family support, online communities and peer groups offer a unique form of support based on shared experiences rather than professional expertise or familial obligation. This experiential knowledge creates powerful validation that can normalize the challenges of living with diabetes.

P27 (male, 34) described the significance of this connection: “On the road to controlling my blood sugar, the friends in the forum make me feel less alone. We share experiences and encourage each other.”

Peer support provides a sense of connection that addresses the feelings of isolation and abnormality often accompanying chronic illness. Unlike family support, which may be limited by the family members’ lack of firsthand experience with diabetes, peer networks offer authentic understanding based on similar lived experiences. Many participants described finding comfort in spaces where they didn’t need to explain their challenges, as others already understood. This shared perspective can validate individuals’ struggles in ways that professional and family support cannot, creating a complementary support system that addresses distinct psychological needs.

3.2.3. Sub-theme: Developing Psychological Resilience

While external support provides crucial foundations, individuals must also develop internal psychological resources to sustain long-term adaptation to diabetes. This sub-theme examines the internal psychological strategies that promote resilience and emotional well-being.

Successful adaptation often involves reframing diabetes from a source of victimhood to a challenge that can be actively managed. This cognitive restructuring, combined with mental discipline, creates a foundation for sustained self-management practices.

P15 (male, 49) demonstrated this reframing approach: “No matter how hard life is, we must not bow to it. Diabetics should be strong, not blame fate or feel inferior, but be warriors in life.”

P22 (female, 36) emphasized mental discipline: “I tell myself to smile no matter what happens. Even when injections hurt, I must persist, because only by persisting can I take control of my health.”

These approaches transform the passive experience of having diabetes into an active practice of self-management. By adopting an empowered perspective and developing mental discipline, individuals enhance their sense of control and competence. Several participants described specific moments of transformation when they shifted from feeling like victims to feeling like managers of their condition. This psychological reframing directly influences both emotional well-being and motivation to engage in self-care behaviors, showing the interconnection between psychological adaptation and practical management.

3.3. Practical Management Strategies and Daily Adaptations

Building upon the psychological foundation established in Theme 1, individuals begin to formulate and implement practical strategies for managing diabetes within the context of daily life. This theme explores the ways in which psychological acceptance is operationalized through specific behavioral practices, including dietary regulation, engagement in physical activity, and adherence to medical routines.

3.3.1. Dietary Management and Nutritional Knowledge

Dietary regulation represents a central component of effective diabetes management. This sub-theme examines how individuals cultivate sustainable nutritional habits that reconcile medical dietary guidelines with personal preferences and broader quality-of-life considerations.

Many individuals adopt balanced dietary strategies that emphasize moderation over rigid restriction. This adaptable approach supports long-term adherence by allowing for continued enjoyment of food while sustaining effective glycemic control.

P17 (male, 47) described his approach: "Dietary control must be balanced, avoiding foods but not flavors. I have never taken supplements or health products, nor do I calculate calories in my meals. I control the portions by weight, having at least three meals a day."

P5 (female, 52) shared her evolution: "At first, I cut out everything I loved—rice, noodles, all sweets. I was miserable and eventually rebelled. Now I eat small portions of everything and focus on timing. My blood sugar is better controlled because I can actually stick with this approach."

These narratives indicate a mature adaptation to diabetes management, where individuals have progressed beyond the initial restrictive patterns often adopted after diagnosis. Such flexibility constitutes an integration of diabetes management into normal life rather than allowing the condition to dominate every food choice. Many participants described an initial period of extreme restriction followed by a more balanced approach as they gained experience with their body's responses. This evolution toward balanced management suggests that effective dietary adaptation involves finding personalized approaches that are both medically effective and psychologically sustainable.

In addition to developing flexible approaches to food selection, individuals develop sophisticated knowledge about how meal timing and portion control affect their blood glucose levels. This experiential learning enables personalized approaches to nutritional management.

P11 (male, 43) explained his strategy: "I eat all kinds of fruits, but I limit the amount. I eat them between meals, during snacks, and avoid eating them before or after meals."

P24 (female, 39) shared her discovery: "I found that eating protein first, then vegetables, and carbohydrates last slows the spike in my blood sugar. It's a simple change but makes a huge difference in my numbers."

Strategic food choices—rather than strict avoidance of certain foods—emerged as a more sustainable approach to managing blood glucose levels. Over time, individuals developed a nuanced understanding of their own metabolic responses, creating personalized routines for meal timing and composition to support glycemic control. Many participants kept detailed food diaries, tracking how specific foods and eating patterns influenced their blood sugar levels. This accumulated experiential knowledge often became as influential as formal dietary guidance, highlighting how successful diabetes self-management involves becoming an expert in one's own condition.

3.3.2. Sub-theme: Physical Activity Integration

Connecting to dietary management, physical activity represents another critical element of diabetes care, contributing to improved insulin sensitivity and overall well-being. This sub-theme explores how individuals integrate movement into their daily lives

as a strategy for maintaining glycemic control. Participants described a range of approaches—from structured exercise routines to informal, everyday activities—that supported their efforts to manage blood glucose levels consistently.

Many individuals develop detailed exercise routines that reflect their specific needs and preferences. These structured approaches provide reliable means of managing blood glucose while supporting overall health.

P9 (male, 38) outlined his structured program: “Every day after meals, I do 10 burpees per set with a 30-second rest in between, for 5 sets. On alternate days, I do 15 push-ups per set, 4 sets, and 20 squats per set, for 4 sets.”

P18 (female, 45) described her consistent routine: “I exercise at least twice a day: in the morning, I run 2-3 kilometers, walk 1-2 kilometers, and start a 30-minute walk after dinner.”

Different approaches to physical activity integration range from structured high-intensity exercises to regular, moderate-intensity activities embedded in daily life. The specificity of these routines demonstrates how individuals personalize medical recommendations to fit their lives, actively engaging in their own disease management. Participants often described conducting personal “experiments” to determine which exercise routines most effectively stabilized their blood glucose levels. Particularly noteworthy was the emphasis on timing—especially engaging in activity after meals—which was frequently reported as beneficial for glycemic control. This attention to timing reflects a practical, experience-based understanding of how their bodies respond to physical activity in the context of diabetes.

Beyond structured exercise, many individuals make gradual changes to their daily routines to reduce sedentary behavior and increase physical activity throughout the day. These simple yet consistent strategies are often more sustainable than intensive or highly demanding exercise programs.

P14 (male, 51) shared his approach: “I walk more between meals to avoid sitting for long periods. I find that if I sit down right after eating, my blood sugar levels rise significantly.”

P29 (female, 44) described workplace adaptations: “I set an alarm to stand every 30 minutes at my desk job. I take the stairs instead of the elevator and park far from entrances. These small changes add up and help keep my blood sugar stable throughout the day.”

These examples demonstrate how even modest increases in physical activity can significantly impact diabetes management. Participants’ awareness of the effects of sedentary behavior on blood glucose regulation reflects a detailed understanding developed through personal experience. Many participants described creative ways of incorporating movement into otherwise sedentary environments, such as workplace settings or long commutes. This knowledge-based approach to activity management constitutes an important aspect of successful adaptation, showing how individuals translate medical knowledge into practical daily behaviors that fit within their everyday lives.

3.3.3. Sub-theme: Medical Management and Treatment Integration

While lifestyle modifications form the foundation of diabetes management, medical treatments provide essential support in maintaining glucose control. This sub-theme explores how individuals navigate medical aspects of diabetes care while integrating treatments into their daily lives.

The use of medication involves both practical management and psychological adjustment. Many individuals experience complex emotions about medication dependence while recognizing its effectiveness in controlling their condition.

P21 revealed the emotional complexity: “After taking the medicine for a week, I wondered, how long will I have to take this? Will I take it forever? I went to the hospital for another check-up, and luckily, my blood sugar dropped to 7.2.”

P33 described her ritual: “I keep my medication in a special box with compartments for each day. Preparing it has become a Sunday night routine that helps me feel in control. It’s no longer a reminder of illness but a symbol of self-care.”

Even when medications effectively control glucose levels, individuals may struggle with questions about permanence and dependence. Several participants described an internal struggle between appreciation for medication effectiveness and resistance to the idea of lifelong treatment. This questioning reveals how individuals continually reconcile themselves to the chronicity of diabetes, highlighting the ongoing psychological adaptation required throughout the disease course. The interconnection between biological intervention and psychological impact shows how medical management cannot be separated from its emotional dimensions.

3.4. Theme 3: Socioeconomic Impacts and Life Adaptation

Although the practical strategies discussed in Theme 2 are foundational to effective diabetes management, they must be situated within broader life contexts shaped by socioeconomic factors. This theme explores how individuals modify financial planning, career development, and long-term life goals to align with the ongoing demands of living with diabetes.

3.4.1. Sub-theme: Financial and Economic Adaptations

Diabetes management involves substantial ongoing expenses that create significant financial pressure, particularly for individuals with limited resources. These economic burdens constitute a major dimension of the diabetes experience that extends far beyond clinical management.

P16 expressed this burden: “People with diabetes need money to support their family and manage their illness. They can’t afford to get sick or delay treatment. The financial pressure from buying medication is overwhelming.”

P28 described difficult trade-offs: “Sometimes I have to choose between buying better-quality food or getting all my test strips for the month. These are impossible choices that affect both my health and our family budget.”

The multiple financial demands—including medication costs, specialized foods, medical appointments, and exercise equipment—create a cumulative burden that can limit adherence to recommended treatments. Participants described detailed budgeting strategies to accommodate diabetes expenses, often requiring sacrifices in other areas of household spending. Financial constraints create additional psychological stress that compounds emotional challenges while potentially limiting adherence to optimal management strategies, creating cycles where economic strain affects psychological well-being, which can in turn negatively impact glucose control.

3.4.2. Sub-theme: Career and Long-Term Life Planning

Building upon the financial pressures described above, diabetes can create workplace vulnerabilities that affect career security and trajectories. Many individuals face potential discrimination or limitations that require proactive planning and adaptation strategies that extend far beyond daily self-management.

P25 shared his concern: “I have seen posts on the forum where fellow patients were advised to quit their jobs or not renew their contracts. I also worry about my own future.”

P10 described workplace accommodations: “I switched from field work to an office position where I can more easily manage my meal timing and insulin injections. The pay is slightly lower, but the regular schedule has improved my blood sugar control dramatically.”

The fear of job discrimination shows how the condition’s impact extends beyond health into social and economic domains, creating additional stressors that aren’t addressed in typical medical care. Many participants described careful strategies to manage

their condition in workplace settings, including strategic disclosure decisions about when and how to inform employers and colleagues about their condition. The psychological adaptation described in Theme 1 must therefore extend beyond accepting the condition itself to encompass coping with these secondary social and economic challenges.

In response to both financial and career challenges, living with diabetes often prompts a fundamental reassessment of life priorities and future goals. This recalibration of aspirations constitutes perhaps the most profound and far-reaching adaptation to diabetes, as it reshapes individuals' entire life narratives and future trajectories.

P20 explained his shift in perspective: "Because of diabetes, I have started to rethink my future career plans, choosing jobs with less pressure and a regular work schedule."

P32 described a philosophical transformation: "Before diabetes, I measured success by career advancement and income. Now I prioritize having time with family, maintaining health, and finding daily joy. It's a complete change in how I define a good life."

Rather than viewing diabetes as simply limiting options, this approach constitutes an adaptive reprioritization that acknowledges health as a foundational requirement for other life goals. The shift toward jobs with less stress and more regular schedules reflects how the practical management strategies described in Theme 2 become organizing principles for major life decisions. Many participants described making significant career changes after diagnosis, seeking positions that accommodated their health management needs even when these choices involved professional compromises.

This reprioritization process represents the integration of all three adaptation themes. Individuals must first achieve psychological acceptance (Theme 1), develop practical management expertise (Theme 2), and then integrate these realities into coherent life plans that accommodate their health needs while preserving meaningful goals. This comprehensive adaptation enables diabetes to become incorporated into identity and life structure in ways that support both health and life satisfaction.

4. Discussion

Our analysis of Chinese diabetes forum participants reveals a staged adaptation process consisting of three interrelated phases: psychological adjustment, the development of practical management strategies, and socioeconomic restructuring. These findings contribute to existing theoretical models of chronic illness adaptation—most notably Bury's concept of biographical disruption and Frank's illness narrative theory—by illustrating how online peer support structures and facilitates movement through each distinct, yet interconnected, phase [10-12].

This phased progression challenges traditional linear models that assume parallel adjustment across all domains of life. Instead, the evidence indicates that psychological resolution serves as a prerequisite for effective self-management, which subsequently enables individuals to address broader social and economic changes. These findings are consistent with Ryan and Sawin's Individual and Family Self-Management Theory, which identifies psychological readiness as foundational to self-management. Importantly, this study extends the model by demonstrating the specific role of peer support in enabling developmental transitions across adaptation stages [13].

4.1. Epistemic Humility and Boundary-Work in Online Communities

The emotional expressions and psychological support mechanisms we observed demonstrate sophisticated forms of what Pols describes as epistemic humility—a careful modulation of knowledge claims that preserves community trust while respecting professional authority [14]. Participants navigated the complex terrain between experiential knowledge and medical expertise through what Kjærulff et al. term "boundary-work," carefully distinguishing between personal experiences and universal guidance [15].

This epistemic humility manifested through specific discursive practices: disclaimers, tentative language, and explicit deference to medical authority when approaching clinical

territory. These practices reflect what Gieryn describes as boundary maintenance between lay and professional knowledge domains [16]. However, unlike Western contexts where such boundaries are often contested or polarized, the Sweet Home forum demonstrated what we term “collaborative epistemic coexistence”—a culturally specific approach where multiple knowledge systems (experiential, biomedical, and traditional) can operate simultaneously without direct conflict.

The forum functioned as what Kingod describes as a space of “evaluative solidarity,” where participants helped one another navigate chronic illness not by displacing professional knowledge, but by supplementing it with contextualized lived experience [17]. This finding extends Mazanderani et al.’s concept of “contextualized credibility” by showing how Chinese cultural values around collective support and epistemic pluralism create unique conditions for knowledge negotiation in online health communities [18].

4.2. Medical Pluralism and Cultural Adaptation Strategies

A particularly significant finding was participants’ pragmatic integration of Traditional Chinese Medicine (TCM) alongside biomedical approaches, reflecting what we term “selective legitimacy”—the strategic invocation of different knowledge frameworks based on effectiveness, accessibility, and cultural resonance rather than ideological commitment. This pattern demonstrates how chronic illness adaptation in non-Western contexts involves navigating multiple medical systems simultaneously.

This medical pluralism challenges Western-centric models of patient empowerment that typically assume conflict between biomedical and alternative approaches. Instead, participants demonstrated what could be described as “medical cosmopolitanism”—the ability to move fluidly between different therapeutic frameworks while maintaining coherent personal health narratives. This finding extends previous research on medical pluralism in chronic illness by showing how online communities facilitate the practical integration of diverse therapeutic approaches [19].

The cultural dimension of this pluralism reflects broader patterns in Chinese healthcare where TCM and biomedicine have achieved institutional coexistence. Our findings suggest that this cultural context enables diabetes patients to construct more flexible and personally resonant management approaches than might be possible in healthcare systems with greater medical orthodoxy.

4.3. Biographical Disruption and Identity Reconstruction

The socioeconomic restructuring we observed aligns closely with Bury’s concept of biographical disruption, where chronic illness creates fundamental disruption in taken-for-granted assumptions requiring individuals to mobilize resources and reconstruct life narratives [10]. However, our findings extend this framework by demonstrating how online peer support specifically facilitates what Frank describes as narrative reconstruction—the process of creating new life stories that incorporate illness while preserving meaningful identity and purpose [12].

The workplace challenges and career adaptations our participants described reflect what Charmaz terms “identity dilemmas” in chronic illness, where individuals must navigate disclosure decisions and manage potential stigma while maintaining professional competence [11]. The forum provided a unique space for rehearsing these identity negotiations and validating alternative definitions of success and achievement.

Particularly noteworthy was participants’ shift from achievement-oriented to health-centered life priorities, which represents what Tedeschi and Calhoun describe as post-traumatic growth—positive psychological change following adversity. This finding suggests that diabetes adaptation can catalyze value clarification and personal growth rather than simply constituting accommodation to limitation [20]. The forum facilitated this transformation by providing models of successful life restructuring and validation for alternative life trajectories.

4.4. Peer Support and Knowledge Co-Construction

The analysis indicates that online diabetes communities operate as dynamic environments for collective knowledge construction, wherein participants collaboratively develop practical expertise while maintaining deference to professional medical authority. This dynamic aligns with Wenger's conceptualization of "communities of practice"—social groups formed around shared challenges that foster collective competence through sustained interaction and mutual engagement [21].

The observed knowledge exchange illustrates that experiential learning in the context of chronic illness extends beyond individual trial-and-error and contributes to the accumulation of shared expertise. Participants effectively functioned as "collaborative diabetes experts," cultivating nuanced understandings of disease management through joint experimentation and reflective dialogue. These findings challenge conventional, individual-centered models of diabetes self-management education by demonstrating that peer-driven learning can yield insights comparable in value to formal clinical instruction [22].

Notably, the respectful framing of advice and adherence to professional boundaries observed in these exchanges suggest the presence of what we refer to as "epistemic humility governance": a set of informal norms that safeguard trust and prevent encroachment into areas reserved for clinical authority. Such a regulatory mechanism may be particularly salient in cultural contexts like China, where medical expertise is afforded considerable societal respect.

5. Conclusion

This study explored how individuals in China living with diabetes engage with online peer-support forums, identifying a three-phase adaptation process: psychological adjustment, the development of practical management strategies, and socioeconomic restructuring. The findings indicate that these stages are interdependent, with psychological adjustment serving as the foundation for acquiring self-management skills, which subsequently facilitate broader life integration and restructuring.

The sequential character of these adaptation phases represents a meaningful empirical contribution to diabetes research, emphasizing that effective chronic illness management involves more than medical adherence. It encompasses emotional processing, peer-based learning, and the reconfiguration of life domains such as career trajectories, financial planning, and personal values. Participants described a progression from initial emotional adjustment and acceptance, to the refinement of practical management approaches, culminating in a comprehensive reassessment of life priorities in response to the demands of chronic illness.

Implications for Practice and Policy

These findings have several important implications for healthcare practice and policy. First, the sequential nature of adaptation processes suggests that psychological support should be prioritized in early post-diagnosis care, as emotional processing appears necessary before individuals can effectively engage with practical management education. Healthcare providers should recognize that peer support offers unique validation through shared experience that complements but does not replace professional care.

Second, the collaborative knowledge exchange observed in the forum suggests opportunities for integrating peer learning into formal diabetes education programs. Rather than viewing peer advice as potentially problematic, healthcare systems could develop structured ways to harness experiential knowledge while maintaining appropriate clinical oversight.

Third, the medical pluralism observed among participants suggests that healthcare providers in multicultural contexts should be prepared to work with patients who integrate multiple medical systems. Rather than viewing this as non-compliance, providers could explore how different knowledge systems might complement each other in supporting patient well-being.

Fourth, the socioeconomic dimensions of adaptation highlight the need for comprehensive support systems that address not only medical and psychological needs, but also the practical challenges of workplace accommodation, financial planning, and career adaptation that diabetes management requires.

Limitations and Future Research Directions

Despite its contributions, this study has several limitations that warrant acknowledgment. The reliance on online narratives introduces potential selection bias, as participants with internet access and digital literacy may not represent the broader population of individuals with diabetes in China. Additionally, the subjective nature of thematic analysis means that alternative interpretations of the data are possible, despite efforts to ensure analytical rigor through team-based coding and consensus-building.

To address these limitations and extend our findings, future research should employ diverse data collection methods, including face-to-face interviews and focus groups, to capture experiences from individuals less likely to share narratives online. Longitudinal studies that track adaptation processes over time would examine how psychological adaptation, practical management development, and socioeconomic restructuring evolve throughout the disease trajectory.

Explicitly investigating the interplay between the three adaptation domains identified in this study would illuminate how challenges or successes in one area impact the others. Comparing adaptation experiences across different cultural contexts and healthcare systems would identify both universal and culturally specific dimensions of diabetes adaptation. Evaluating interventions specifically designed to address the sequential adaptation processes revealed in this study would determine their effectiveness in supporting comprehensive diabetes care.

Author Contributions: Shuai Liu: Conceptualization, Methodology, Formal Analysis, Writing – Original Draft, Writing – Review & Editing. Xuanxi Dong: Data Curation. Chao Lu: Supervision, Writing – Review & Editing. All authors have read and approved the final manuscript.

Funding: The authors receive support from Interdisciplinary Research Project for Young Teachers of USTB (Fundamental Research Funds for the Central Universities) (FRF-IDRY-23-008).

Institutional Review Board Statement: Blogs published on public forum platforms are exempt from ethical approval or clearance, as they do not constitute formal human subjects research (Hewson & Buchanan, 2013; Kjærulff et al., 2024).

Data Availability Statement: The data that support the findings of this study are available from the corresponding author, upon reasonable request.

Conflicts of Interest: No potential conflict of interest was reported by the author(s).

References

1. B. Zhou *et al.*, "Worldwide trends in diabetes prevalence and treatment from 1990 to 2022: A pooled analysis of 1108 population-representative studies with 141 million participants," *The Lancet*, vol. 404, no. 10467, pp. 2077–2093, 2024.
2. B. De Cock and C. Antaki, "How diabetes forum-users complain about others' expectations: Troubles-telling and troubles-receiving," *Discourse & Communication*, vol. 18, no. 5, pp. 726–740, 2024, doi: 10.1177/17504813241243020.
3. R. M. Smedley and N. S. Coulson, "A thematic analysis of messages posted by moderators within health-related asynchronous online support forums," *Patient Education and Counseling*, vol. 100, no. 9, pp. 1688–1693, 2017, doi: 10.1016/j.pec.2017.04.008.
4. V. Braun and V. Clarke, *Thematic Analysis: A Practical Guide*. London, U.K.: SAGE, 2022.
5. Y. Zhao, J. Da, and J. Yan, "Detecting health misinformation in online health communities: Incorporating behavioral features into machine learning based approaches," *Information Processing & Management*, vol. 58, no. 1, p. 102390, 2021, doi: 10.1016/j.ipm.2020.102390.
6. C. V. Talbot and N. S. Coulson, "I found it the only place that spoke the same language': A thematic analysis of messages posted to an online peer support discussion forum for people living with dementia," *Age and Ageing*, vol. 52, no. 1, p. afac330, 2023, doi: 10.1093/ageing/afac330.
7. C. M. Thomas, R. Allison, and J. M. Latour, "Using blogs to explore the lived experience of life after stroke: 'A journey of discovery I never wanted to take'," *Journal of Advanced Nursing*, vol. 74, no. 3, pp. 579–590, 2018, doi: 10.1111/jan.13457.

8. E. Wilson, A. Kenny, and V. Dickson-Swift, "Using blogs as a qualitative health research tool: A scoping review," *International Journal of Qualitative Methods*, vol. 14, no. 5, 2015, doi: 10.1177/1609406915618049.
9. C. Hewson and T. Buchanan, *Ethics Guidelines for Internet-Mediated Research*. Leicester, U.K.: British Psychological Society, 2013, doi: 10.53841/bpsrep.2021.rep155.
10. M. Bury, "Chronic illness as biographical disruption," *Sociology of Health & Illness*, vol. 4, no. 2, pp. 167–182, 1982, doi: 10.1111/1467-9566.ep11339939.
11. K. Charmaz, *Good Days, Bad Days: The Self in Chronic Illness and Time*. New Brunswick, NJ: Rutgers Univ. Press, 1991.
12. A. W. Frank, *The Wounded Storyteller: Body, Illness, and Ethics*, 2nd ed. Chicago, IL: Univ. of Chicago Press, 2013.
13. P. Ryan and K. J. Sawin, "The individual and family self-management theory: Background and perspectives on context, process, and outcomes," *Nursing Outlook*, vol. 57, no. 4, pp. 217–225, 2009, doi: 10.1016/j.outlook.2008.10.004.
14. J. Pols, "Knowing patients: Turning patient knowledge into science," *Science, Technology, & Human Values*, vol. 39, no. 1, pp. 73–97, 2014, doi: 10.1177/0162243913504306.
15. E. M. Kjærulff, M. A. Nexø, C. Papoutsis, and H. Langstrup, "Online boundary-work: How people with diabetes negotiate what counts as legitimate knowledge in Facebook peer support groups," *Social Science & Medicine*, vol. 363, p. 117480, 2024, doi: 10.1016/j.socscimed.2024.117480.
16. T. F. Gieryn, "Boundary-work and the demarcation of science from non-science: Strains and interests in professional ideologies of scientists," *American Sociological Review*, vol. 48, no. 6, pp. 781–795, 1983, doi: 10.2307/2095325.
17. N. Kingod, "The tinkering m-patient: Co-constructing knowledge on how to live with type 1 diabetes through Facebook searching and sharing and offline tinkering with self-care," *Health*, vol. 24, no. 2, pp. 152–168, 2018, doi: 10.1177/1363459318800140.
18. F. Mazanderani, L. Locock, and J. Powell, "Being differently the same: The mediation of identity tensions in the sharing of illness experiences," *Social Science & Medicine*, vol. 74, no. 4, pp. 546–553, 2012, doi: 10.1016/j.socscimed.2011.10.036.
19. A. Kleinman, *Patients and Healers in the Context of Culture: An Exploration of the Borderland Between Anthropology, Medicine, and Psychiatry*. Berkeley, CA: Univ. of California Press, 1980.
20. R. G. Tedeschi and L. G. Calhoun, "Posttraumatic growth: Conceptual foundations and empirical evidence," *Psychological Inquiry*, vol. 15, no. 1, pp. 1–18, 2004, doi: 10.1207/s15327965pli1501_01.
21. E. Wenger, *Communities of Practice: Learning, Meaning, and Identity*. Cambridge, U.K.: Cambridge Univ. Press, 1998.
22. M. D. Slater, C. E. Goodall, and A. F. Hayes, "Self-reported news attention does assess differential processing of media content: An experiment on risk perceptions utilizing a random sample of U.S. local crime and accident news," *Journal of Communication*, vol. 59, no. 1, pp. 117–134, 2009, doi: 10.1111/j.1460-2466.2008.01407.x.

Disclaimer/Publisher's Note: The views, opinions, and data expressed in all publications are solely those of the individual author(s) and contributor(s) and do not necessarily reflect the views of PAP and/or the editor(s). PAP and/or the editor(s) disclaim any responsibility for any injury to individuals or damage to property arising from the ideas, methods, instructions, or products mentioned in the content.