World Journal of Neurology
worldneurologyjournal.com
ISSN:
Received: 13-08-2025, Accepted: 13-09-2025, Published: 28-09-2025
Volume 1, Issue 1, Jul-Sep, 2025, Page No. 27-33

Neuropsychological impact of stigma in individuals with Chronic Obstructive Pulmonary Disease: A qualitative study in Japan

Takeo Yamamura
Faculty of Human Sciences, Department of Nursing, Sophia University, Tokyo, Japan

Abstract
Chronic Obstructive Pulmonary Disease (COPD) is a progressive respiratory condition that significantly affects patients' physical and psychosocial well-being. While the physiological aspects of COPD are well-documented, the neuropsychological impact of social stigma associated with the disease remains underexplored, particularly in non-Western contexts. This qualitative study aimed to investigate the experiences and cognitive-emotional consequences of perceived stigma among individuals with COPD in Japan. Semi-structured, in-depth interviews were conducted with 25 adults diagnosed with moderate to severe COPD, recruited from outpatient respiratory clinics across urban and rural regions. Interviews were transcribed verbatim and analyzed using thematic analysis to identify patterns of cognitive, emotional, and social responses to stigma.
Findings revealed that participants frequently experienced feelings of shame, guilt, and social withdrawal, which were often exacerbated by public misconceptions about COPD and its association with smoking. Many reported heightened anxiety, depressive symptoms, and reduced self-efficacy in managing their disease. Cognitive distortions, such as overgeneralization and catastrophizing regarding their health and social interactions, were commonly observed. Social isolation emerged as both a consequence and amplifier of these neuropsychological effects, leading to decreased participation in daily activities and reluctance to seek medical or social support. Despite these challenges, participants highlighted coping strategies, including engagement with peer support networks and mindfulness practices, which mitigated some of the negative psychological consequences.
The study concludes that stigma related to COPD has substantial neuropsychological repercussions, affecting both emotional well-being and cognitive functioning. Interventions that address social stigma, provide psychoeducational support, and promote adaptive coping mechanisms are essential to improving quality of life for individuals with COPD in Japan. These findings underscore the importance of integrating psychosocial care into standard respiratory management.

Keywords: Chronic Obstructive Pulmonary Disease, Stigma, Neuropsychology, Qualitative Study, Japan, Emotional Well-being, Social Isolation, Coping Strategies

Introduction

Chronic Obstructive Pulmonary Disease (COPD) is a progressive respiratory disorder characterized by persistent airflow limitation, chronic inflammation of the airways, and structural changes in the lungs. Globally, COPD is recognized as a leading cause of morbidity and mortality, accounting for over three million deaths annually and imposing substantial socioeconomic burdens on healthcare systems and affected individuals. In Japan, the prevalence of COPD has been steadily increasing due to the aging population, persistent smoking rates, and exposure to environmental pollutants, making it a significant public health concern. While the physical manifestations of COPD, including dyspnea, chronic cough, and reduced exercise capacity, have been extensively studied, the psychosocial dimensions of the disease remain comparatively underexplored. Among these, the experience of stigma has emerged as a critical yet overlooked factor that can profoundly influence patients' quality of life, disease management, and psychological well-being.

Stigma, broadly defined as a socially constructed process of devaluation and discrimination directed at individuals based on a particular characteristic or condition, has been extensively documented in chronic illnesses such as HIV/AIDS, mental disorders, and obesity. In the context of COPD, stigma often arises from the public perception that the disease is primarily self-inflicted, particularly due to its strong association with smoking. This perception can foster blame, shame, and social judgment, leading to both overt and subtle forms of discrimination. The consequences of such stigma are multifaceted, encompassing social, emotional, and behavioral domains. For instance, individuals with COPD may experience social isolation, avoidance of healthcare services, heightened anxiety, and depressive symptoms. Over time, these psychosocial stressors can exacerbate the physiological progression of COPD, creating a vicious cycle of physical decline and psychological distress.

Despite growing recognition of stigma as a significant psychosocial factor in chronic illnesses, research specifically examining its neuropsychological impact in COPD remains limited. Neuropsychological effects refer to the influence of psychological and cognitive processes on brain function and mental health. In COPD, these may manifest as impaired attention, memory deficits, cognitive distortions, heightened emotional reactivity, and reduced self-efficacy in managing one's condition. Studies suggest that chronic illness-related stigma may alter neural processing of social information, heighten sensitivity to negative social evaluation, and contribute to maladaptive cognitive-emotional patterns. However, most evidence to date has been derived from Western populations, limiting the generalizability of findings to culturally distinct contexts such as Japan, where societal norms regarding health,

personal responsibility, and social harmony may shape the experience and internalization of stigma in unique ways.

The Japanese sociocultural context presents distinct dynamics relevant to COPD-related stigma. Japanese culture emphasizes collectivism, social conformity, and the avoidance of behaviors that may impose burden or shame on others. Within this framework, individuals with chronic illnesses may feel heightened pressure to conform to social expectations of health, productivity, and independence. Consequently, those diagnosed with COPD may internalize public stigma more readily, leading to self-stigmatization, negative self-perceptions, and reluctance to seek support. Additionally, the perception of smoking-related culpability may carry significant moral and social weight in Japan, intensifying the neuropsychological burden of stigma. Understanding how these cultural factors intersect with the lived experience of COPD is essential for designing effective interventions that address both psychosocial and physiological outcomes.

Qualitative research offers a particularly valuable approach for exploring these experiences in depth. Unlike quantitative measures, which may capture only predefined aspects of stigma or psychological impact, qualitative methods allow for nuanced understanding of participants' perspectives, emotions, and cognitive processes. In the context of COPD, qualitative investigations can illuminate the ways in which stigma is perceived, internalized, and expressed, as well as the strategies patients employ to cope with these challenges. This knowledge is crucial not only for developing culturally sensitive interventions but also for informing healthcare providers, policymakers, and public health campaigns aimed at reducing stigma and improving patient outcomes.

The present study aims to examine the neuropsychological impact of stigma among individuals living with COPD in Japan using a qualitative methodology. By conducting in-depth interviews with patients from diverse demographic and clinical backgrounds, the study seeks to identify patterns of cognitive, emotional, and social responses to stigma, as well as coping mechanisms employed to mitigate its effects. Specifically, this research addresses the following questions: How do individuals with COPD perceive and experience stigma in their daily lives? What are the emotional and cognitive consequences of stigma for patients' psychological well-being? How do social and cultural factors in Japan influence these experiences? By answering these questions, the study contributes to a more comprehensive understanding of the psychosocial dimensions of COPD and highlights the importance of integrating psychological care into disease management.

The significance of this research is multifaceted. First, it advances knowledge of the neuropsychological effects of chronic illness-related stigma, an area that has received limited attention in COPD research. Second, it provides culturally specific insights into how stigma is experienced and internalized in Japan, offering guidance for designing interventions that are socially and culturally appropriate. Third, by emphasizing the interplay between cognitive, emotional, and social factors, the study underscores the need for holistic care approaches that go beyond symptom management to address mental health, social participation, and quality of life. Ultimately, this research aims to inform clinical practice, support the development of stigma-reduction programs, and empower individuals with COPD to maintain psychological resilience and social engagement despite the challenges of their condition.

In summary, while COPD is widely recognized for its physical health implications, the neuropsychological consequences of disease-related stigma remain insufficiently explored, particularly in non-Western contexts. The present study seeks to fill this gap by investigating how Japanese individuals with COPD perceive, internalize, and respond to stigma, and how these experiences influence cognitive, emotional, and social functioning. Through this qualitative exploration, the study provides a foundation for culturally sensitive interventions that enhance psychosocial well-being, promote adaptive coping, and ultimately improve overall quality of life for individuals living with COPD.

Methods

Study Design

This study employed a qualitative research design to explore the neuropsychological impact of stigma among individuals living with Chronic Obstructive Pulmonary Disease (COPD) in Japan. A qualitative approach was selected due to its ability to provide rich, in-depth insights into participants' subjective experiences, cognitive-emotional responses, and social interactions—dimensions that are difficult to capture through quantitative measures alone. Specifically, a phenomenological framework guided the study, focusing on understanding the lived experiences of individuals with COPD and the ways in which stigma shapes their psychological and social functioning. This design enabled the identification of common themes and patterns of thought, emotion, and behavior while allowing for the exploration of culturally specific influences on the experience of stigma.

Participants and Recruitment

Participants were adults diagnosed with moderate to severe COPD, as defined by the Global Initiative for Chronic Obstructive Lung Disease (GOLD) criteria. Inclusion criteria were: (1) age 40 years or older, reflecting the typical age range for clinically significant COPD; (2) confirmed diagnosis of COPD for at least six months to ensure adequate experience with disease management; (3) ability to communicate in Japanese; and (4) willingness to participate in a one-on-one interview. Exclusion criteria included a history of severe cognitive impairment, psychiatric disorders that could interfere with comprehension, and comorbidities requiring hospitalization, as these factors could confound the exploration of stigma-related neuropsychological effects.

Participants were recruited from outpatient respiratory clinics in both urban (Tokyo, Osaka) and rural regions (Shikoku, Hokkaido) to capture diverse sociocultural contexts within Japan. Recruitment utilized purposive sampling to ensure representation across gender, age, disease severity, and socioeconomic status. Clinic staff identified eligible patients and provided information about the study. Interested individuals were contacted by the research team, and written informed consent was obtained prior to participation. A total of 25 participants were recruited, which aligns with qualitative research guidelines suggesting that this sample size is sufficient to achieve thematic saturation while allowing for in-depth analysis.

Data Collection

Data were collected through semi-structured, in-depth interviews, which are well-suited for exploring personal experiences and perceptions of stigma. An interview guide was developed based on existing literature on stigma in chronic illness and neuropsychological outcomes. Key domains included participants' experiences of social judgment or discrimination, emotional reactions to stigma, perceived cognitive and behavioral effects, coping strategies, and the influence of cultural norms on self-perception. Questions were open-ended to encourage participants to provide rich, detailed narratives and to allow new themes to emerge naturally.

Interviews were conducted in private rooms at participating clinics or via secure video conferencing for participants who preferred remote sessions. Each interview lasted approximately 60–90 minutes and was audio-recorded with participants' consent. Field notes were taken to capture non-verbal cues, contextual factors, and immediate reflections that could enrich data interpretation. Data collection continued until thematic saturation was reached, meaning that no new substantive themes emerged in the final interviews.

Ethical Considerations

The study was approved by the institutional ethics review board of the lead research institution. Participants received detailed information regarding the purpose of the study, their rights to confidentiality, and the voluntary nature of participation. Pseudonyms were assigned to all participants to maintain anonymity, and any identifying information was removed during transcription. Given the sensitive nature of discussing stigma and its psychological consequences, participants were provided with referrals to mental health support services if distress arose during or after interviews.

Data Analysis

Audio recordings were transcribed verbatim in Japanese and reviewed for accuracy. Data were analyzed using thematic analysis, following the six-phase approach described by Braun and Clarke. This method involves: (1) familiarization with the data through repeated reading of transcripts; (2) generation of initial codes capturing meaningful features of the data; (3) identification of potential themes by clustering related codes; (4) review of themes to ensure they accurately reflected the dataset; (5) definition and naming of final themes; and (6) production of the report with illustrative quotes from participants. Coding and theme development were conducted iteratively by two researchers independently, followed by discussion to resolve discrepancies and reach consensus. *NVivo* software (version 12) was used to organize and manage data systematically.

To enhance rigor and credibility, the study employed several strategies. Member checking was conducted by sharing preliminary themes with a subset of participants to ensure interpretations accurately reflected their experiences. Peer debriefing with senior researchers provided additional validation of coding decisions and thematic organization. Triangulation of data was achieved by comparing participants' narratives across different demographic groups and clinical settings. Reflexive journaling was maintained by the primary researchers to document potential biases and assumptions that could influence data interpretation.

Trustworthiness and Quality Assurance

The study adhered to established qualitative research standards to ensure trustworthiness. Credibility was achieved through prolonged engagement with participants and iterative member checking. Transferability was enhanced by providing detailed contextual descriptions of participants' backgrounds and clinical settings. Dependability was supported by maintaining a clear audit trail of coding decisions, data management procedures, and analytical steps. Confirmability was addressed through peer debriefing and reflective journaling, ensuring that findings were grounded in participants' narratives rather than researcher preconceptions.

Reflexivity

Given the potential influence of cultural norms and researcher perspectives on the interpretation of stigma, reflexivity was an integral component of the study. Researchers acknowledged their professional backgrounds in psychology and public health and their prior exposure to COPD patient populations. Regular team discussions were conducted to critically examine assumptions and biases, particularly in relation to cultural interpretations of stigma, shame, and social responsibility in Japan.

Limitations

While the qualitative design enabled in-depth exploration of lived experiences, it inherently limits generalizability. Findings reflect the experiences of 25 Japanese adults with COPD and may not be directly applicable to other populations or cultural contexts. Additionally, reliance on self-reported narratives introduces the possibility of recall bias and social desirability effects, particularly when discussing sensitive topics such as smoking history or experiences of discrimination. These limitations are acknowledged, and the study's focus remains on providing a nuanced understanding of participants' subjective experiences rather than establishing causal relationships.

Results

Participant Characteristics

A total of 25 individuals diagnosed with moderate to severe Chronic Obstructive Pulmonary Disease (COPD) participated in this study. Participants' ages ranged from 45 to 82 years, with a mean age of 66.4 years. The sample included 15 males and 10 females. Disease duration ranged from 1 to 18 years, with a median duration of 7 years. All participants had a confirmed diagnosis of COPD based on spirometry results consistent with GOLD criteria. Smoking history varied: 14 participants were current smokers, 8 were former smokers, and 3 had never smoked but had significant exposure to secondhand smoke or occupational pollutants. Most participants resided with family members (n = 19), while 6 lived alone. Educational backgrounds ranged from primary school to university-level education, and socioeconomic status was mixed, with 12 participants reporting low-income, 9 middle-income, and 4 high-income households.

Emergent Themes

Thematic analysis of interview transcripts identified five primary themes relating to the neuropsychological impact of stigma: (1) Internalized Shame and Guilt, (2) Social Withdrawal and Isolation, (3) Emotional Distress, (4)

Cognitive Distortions and Reduced Self-Efficacy, and (5) Coping Mechanisms. Each theme is described in detail below, with illustrative quotes from participants.

1. **Internalized Shame and Guilt**
   Participants frequently described feelings of shame and self-blame related to their COPD diagnosis, often linked to societal perceptions of smoking as the primary cause of the disease. Many expressed a sense of personal failure or moral inadequacy. One participant stated, "I feel like I've brought this on myself. Every cough reminds me that I deserve this." These feelings were pervasive, influencing both self-perception and interpersonal interactions. Internalized guilt was reported across gender and age groups, although older participants emphasized regret over lifestyle choices made decades earlier.

2. **Social Withdrawal and Isolation**
   A prominent theme was the tendency to withdraw from social interactions due to perceived stigma. Participants reported avoiding public spaces, social gatherings, or group activities to prevent judgment or unsolicited commentary about their illness. One participant explained, "I stopped going to the community center because I couldn't bear people looking at me and thinking I'm at fault for smoking." Social isolation was reported to exacerbate feelings of loneliness and reduced engagement in both professional and leisure activities. In some cases, participants limited family interactions, expressing concern that their illness and its associated stigma would burden loved ones.

3. **Emotional Distress**
   Emotional consequences of perceived stigma were consistently reported. Participants described experiencing anxiety, depressive symptoms, frustration, and hopelessness. Anxiety often centered on social evaluation, fear of public judgment, and anticipated negative interactions in healthcare or community settings. Depression manifested as persistent sadness, loss of motivation, and diminished interest in activities previously enjoyed. Several participants reported heightened irritability and emotional sensitivity, attributing these changes to both disease-related limitations and social stigma. Notably, female participants more frequently described feelings of embarrassment and low self-esteem, whereas male participants emphasized anger and resentment toward societal judgments.

4. **Cognitive Distortions and Reduced Self-Efficacy**
   Participants demonstrated several patterns of cognitive distortions associated with stigma. These included overgeneralization, catastrophizing, and rumination about social evaluation or disease progression. Many participants believed that their illness defined their identity and predicted negative outcomes in social and occupational domains. One participant noted, "People see me and they only see a sick smoker. I can't change how they think, so I just assume the worst in every interaction." Reduced self-efficacy was also evident, with participants reporting difficulties in managing disease symptoms, adhering to treatment regimens, and engaging in recommended physical activity. Cognitive preoccupation with stigma often interfered with concentration, decision-making, and problem-solving in daily life.

5. **Coping Mechanisms**
   Despite the negative psychological impact of stigma, participants described various coping strategies to manage emotional distress and maintain functional engagement. Coping mechanisms were categorized into three subthemes: social support, personal resilience strategies, and healthcare engagement.

- **Social Support:** Participants reported that family, friends, and peer support groups provided emotional reassurance and a sense of belonging. For example, one participant stated, "Talking with others who have COPD makes me feel understood. I don't feel judged there." Peer support networks were particularly valuable in countering feelings of isolation and reinforcing adaptive behaviors.

- **Personal Resilience Strategies:** Mindfulness, meditation, and engagement in hobbies were commonly described as methods for managing anxiety and depressive symptoms. Some participants emphasized self-talk and reframing strategies to mitigate negative thoughts associated with stigma.

- **Healthcare Engagement:** Participants who maintained regular follow-up with respiratory specialists and counselors reported increased confidence in managing symptoms and reduced fear of judgment. Regular interaction with healthcare providers who displayed empathy and understanding helped participants navigate feelings of shame and internalized stigma.

Variations by Demographic Factors

Analysis revealed some variations in experiences of stigma based on demographic and clinical characteristics. Older participants tended to internalize guilt related to lifelong habits, whereas younger participants emphasized social judgment in professional or public contexts. Female participants reported greater emotional sensitivity to stigma, while males more frequently expressed frustration and anger. Disease severity also influenced psychological responses; participants with more advanced COPD reported higher levels of social withdrawal and cognitive preoccupation with stigma, whereas those with moderate disease described using coping strategies more actively to maintain social and functional engagement.

Patterns of Interaction Between Themes

The five primary themes were interconnected. Internalized shame and guilt frequently led to social withdrawal, which in turn contributed to emotional distress. Cognitive distortions often intensified both emotional distress and feelings of social isolation. Coping mechanisms, particularly engagement with supportive networks and adaptive strategies, served as moderating factors, reducing the severity of emotional and cognitive consequences. These interactions suggest a dynamic relationship between social stigma, neuropsychological processes, and behavioral outcomes.

Summary of Findings

Overall, participants reported that stigma associated with COPD had significant neuropsychological consequences, influencing emotional well-being, cognitive processing, social behavior, and disease self-management. While experiences varied across age, gender, and disease severity, commonalities included pervasive feelings of shame, heightened emotional distress, social withdrawal, and cognitive preoccupation with social evaluation. Coping strategies, particularly those involving social support and personal resilience, played a critical role in mitigating negative outcomes.

Discussion

This study explored the neuropsychological impact of stigma among individuals with Chronic Obstructive Pulmonary Disease (COPD) in Japan through a qualitative lens. The findings reveal that perceived stigma exerts profound influences on cognitive, emotional, and social dimensions of patients' lives, with both direct and indirect implications for disease management and quality of life. By examining participants' lived experiences, this study provides insight into how internalized shame, social withdrawal, emotional distress, cognitive distortions, and coping mechanisms interconnect, highlighting the importance of culturally informed interventions in managing COPD-related stigma.

Internalized Shame and Guilt

One of the most salient findings was the pervasive experience of internalized shame and guilt. Participants frequently associated their COPD with past smoking behaviors or lifestyle choices, reinforcing a sense of personal failure. This internalization aligns with prior research suggesting that stigma related to health conditions often leads to self-blame and moral judgment, which can exacerbate psychological distress. In the Japanese cultural context, where social harmony and personal responsibility are highly valued, the internalization of blame may be particularly intense. Participants' narratives indicate that these feelings of shame were not only emotional but also cognitive, shaping self-concepts and influencing expectations of social interactions. This suggests that internalized stigma operates both as an affective and cognitive burden, potentially reducing motivation to seek support or adhere to treatment regimens.

Social Withdrawal and Isolation

Social withdrawal emerged as a central behavioral response to perceived stigma. Participants described avoiding social gatherings, limiting interactions with friends and family, and refraining from public activities where their illness or smoking history might be scrutinized. This finding highlights the cyclical nature of stigma: fear of judgment leads to social isolation, which in turn amplifies feelings of shame, loneliness, and depression. Social withdrawal has implications beyond emotional well-being, as reduced engagement in community or familial networks may limit access to practical and emotional support, further compromising disease management. The Japanese cultural emphasis on group cohesion and avoidance of behaviors that might burden others may exacerbate these tendencies, suggesting that interventions targeting stigma should incorporate culturally sensitive strategies to encourage social participation without judgment.

Emotional Distress

Participants reported a range of negative emotions, including anxiety, depression, frustration, and hopelessness. These emotional responses were closely linked to perceptions of stigma and were often reinforced by cognitive distortions, such as catastrophizing social interactions or anticipating negative judgment. Notably, gender differences emerged: female participants tended to report heightened embarrassment and low self-esteem, whereas male participants emphasized anger and resentment toward societal judgments. These differences may reflect culturally mediated gender norms in Japan, where women may internalize emotional experiences more readily, while men may externalize them through expressions of frustration. The emotional burden observed in this study underscores the need for psychological interventions that address not only clinical depression or anxiety but also the underlying social and cognitive contributors linked to stigma.

Cognitive Distortions and Reduced Self-Efficacy

Cognitive distortions were a significant theme, manifesting as overgeneralization, rumination, and negative self-assessment. Participants often believed that their illness defined their identity and that social evaluation would invariably be negative. Such patterns may reduce self-efficacy, affecting patients' confidence in managing COPD symptoms, adhering to treatment protocols, and maintaining physical activity. These findings align with previous studies in chronic illness populations, suggesting that stigma-related cognitive distortions can contribute to maladaptive behaviors, reduced engagement with healthcare services, and poorer clinical outcomes. Importantly, the interplay between cognitive distortions, emotional distress, and behavioral withdrawal indicates a complex feedback loop, whereby stigma reinforces neuropsychological vulnerabilities that may hinder both mental and physical health.

Coping Mechanisms and Resilience

Despite the significant negative impact of stigma, participants described a range of coping strategies that mitigated psychological distress. Social support from family, friends, and peer groups emerged as a critical protective factor, providing validation and reducing the sense of isolation. Engagement with peers who also had COPD allowed participants to share experiences without fear of judgment, facilitating adaptive coping. Personal resilience strategies, including mindfulness, meditation, and hobbies, were also commonly employed to manage emotional distress. Regular interaction with empathetic healthcare providers reinforced self-efficacy and contributed to more positive perceptions of disease management. These findings suggest that interventions targeting COPD-related stigma should not only aim to reduce external stigma but also strengthen individual coping resources, self-efficacy, and social connectedness.

Cultural Context and Stigma

The Japanese sociocultural context played a significant role in shaping participants' experiences of stigma. Cultural

norms emphasizing social harmony, avoidance of burdening others, and personal responsibility appear to intensify the internalization of stigma, influencing both emotional and cognitive responses. This may explain why participants expressed profound guilt and reluctance to seek social or medical support despite evident need. Compared to Western contexts, where stigma may be addressed more openly through public health campaigns and patient advocacy, Japanese individuals may be more likely to internalize societal judgments, making culturally sensitive interventions essential. These interventions might include psychoeducation for patients and families, stigma-reduction campaigns tailored to local social norms, and clinical strategies that normalize the experience of COPD while promoting resilience and self-compassion.

Implications for Clinical Practice

The findings have several implications for healthcare providers. First, assessment of COPD patients should extend beyond physiological symptoms to include evaluation of perceived stigma, emotional well-being, and cognitive patterns. Second, integrated care approaches that combine respiratory management with psychological support, counseling, and peer engagement may improve overall outcomes. Third, clinicians should recognize the role of cultural values in shaping patients' experiences, addressing internalized shame and promoting adaptive coping within the context of Japanese social norms. Fourth, psychoeducational programs targeting families and communities may reduce stigmatizing attitudes and encourage supportive behaviors.

Comparison with Previous Research

This study's findings are consistent with prior research demonstrating that chronic illness-related stigma negatively affects psychological well-being, cognitive function, and social participation. Previous studies in COPD populations have documented social isolation, anxiety, and depression associated with perceived stigma; however, most research has been conducted in Western contexts. The present study extends these findings to a Japanese sample, highlighting the cultural specificity of stigma experiences and the role of internalized moral judgments in shaping neuropsychological outcomes. Additionally, the identification of coping mechanisms, particularly peer support and resilience strategies, reinforces the importance of psychosocial interventions in chronic disease management.

Limitations and Future Directions

Several limitations should be acknowledged. The qualitative design and purposive sampling limit generalizability; findings may not reflect experiences of all Japanese individuals with COPD or populations in other cultural contexts. The reliance on self-reported experiences may introduce recall bias or social desirability effects, particularly given the sensitive nature of discussing shame and guilt. Additionally, the study did not include objective neuropsychological assessments, which could provide complementary data on cognitive function. Future research could employ mixed-method designs, integrating quantitative measures of cognitive performance, psychological distress, and social functioning with qualitative narratives to provide a more comprehensive understanding of stigma's impact. Longitudinal studies could also examine how stigma and coping strategies evolve over time and influence clinical outcomes.

Conclusion

This qualitative study examined the neuropsychological impact of stigma in individuals with Chronic Obstructive Pulmonary Disease (COPD) in Japan, revealing profound effects on emotional, cognitive, and social functioning. Participants consistently reported experiences of internalized shame and guilt, heightened emotional distress, social withdrawal, and cognitive distortions, which collectively reduced self-efficacy and impaired daily functioning. These effects were influenced by cultural norms emphasizing personal responsibility, social harmony, and avoidance of burdening others, highlighting the contextual specificity of stigma in Japanese society.

Despite these challenges, participants demonstrated adaptive coping mechanisms, including reliance on social support networks, engagement with empathetic healthcare providers, and personal resilience strategies such as mindfulness and hobbies. These coping strategies mitigated the negative consequences of stigma and promoted psychological well-being, underscoring the potential for targeted interventions.

Overall, the findings indicate that stigma is a significant neuropsychological burden for individuals with COPD, influencing both mental health and disease management. Culturally sensitive interventions that address internalized stigma, foster social support, and enhance coping skills are essential for improving quality of life and health outcomes in this population. This study provides a foundation for future research and clinical programs aimed at reducing stigma and supporting the holistic care of individuals living with COPD.

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