# Theoretical Framework of Measures of Resilience: A Genderfocused Critical Review

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Abstract: Assessing the resilience of rural women amidst the COVID-19 pandemic is crucial for understanding how they navigated the additional challenges brought by the crisis. This study emphasizes the importance of gender-specific and culturally sensitive measures in evaluating the resilience of Indian rural women, considering their diverse regional and cultural backgrounds. The authors propose examining rural women's resilience through the theoretical frameworks of the positive cognitive triad and psychological capital. A qualitative analysis of resilience measures sourced from Google Scholar, PubMed, and SCOPUS databases reveals the absence of a gender-specific resilience scale tailored to rural Indian women, with limited incorporation of the proposed theoretical frameworks. The findings underscore the need for systematic evaluation of community psychological needs, especially in times of crisis, to address gender disparities and effectively support vulnerable populations. Recommendations include developing a tailored resilience measure for Indian rural women to inform targeted developmental programs in similar contexts.

Keywords: Measures of Resilience, Theoretical Framework, Critical Review, Cognitive Triad, Psychological Capital

#### 1. Introduction

Amidst the global COVID-19 pandemic, the United Nations (UN) underscored the pivotal role of rural women in fostering resilient and sustainable communities. Introduced for the International Day of Rural Women on October 15, 2020, the theme "Building Rural Women's Resilience in the Wake of COVID-19" emphasized this significance (UN Women, 2020). The pandemic exacerbated the vulnerabilities of Indian rural women (Chakraborty, 2021), magnified by entrenched gender inequalities (Taub, 2020). Constraints on mobility, increased domestic responsibilities, and essential goods shortages intensified their hardships (United Nations Women, 2020), negatively impacting mental health (Jungari, 2020; Nathiya et al., 2020). This necessitates sustained efforts to foster psycho-social attributes among rural women, including resilience, planning skills, persistence, empathy, self-regard, and kindness, to mitigate adverse experiences such as poverty, gender exclusion, and mental distress (Masten, Obradovic & Burt, 2006). The research underscores the multifaceted nature of resilience, suggesting its assessment from genetic, epigenetic, developmental, demographic, cultural, economic, and social viewpoints (Southwick et al., 2014). The childhood protective factors consistently identified for resilience in individuals include healthy attachment styles, adequate care, emotional control skills, self-awareness, the ability to visualize the future, and self-motivation to learn, grow, and adapt to their environment (Southwick et al., 2014). This highlights the significance of the psychological aspects of resilience.

This review underscores the imperative of prioritizing the psychological dimensions of resilience among women within individual contexts (Coley et al., 2021; Valsala & Devanathan, 2021). It stresses the significance of individual traits and subjective factors in managing social exclusion. Culturally sensitive and gender-specific measures, grounded in psychological frameworks, are essential to effectively assess resilience at the individual level. From an individual's perspective, resilience is about how one perceives themselves, others, and their future. Primarily, resilience depends on one's own psychological resources. Hence, a combination of the concepts of cognitive triad (Mak, Ng & Wong, 2011) and psychological capital (Luthans et al., 2007) seems valuable in offering insights and understanding of the dynamic concept of resilience. Hence, the objectives of this review are to identify gender-specific resilience measures suitable for rural women in India and recognise resilience measures underpinned by the concepts of the positive cognitive triad and psychological capital (PsyCap) as primary theoretical frameworks.

## 2. Resilience

Originating from the Latin verb "resitire," meaning 'to leap back,' initially referred to an object's ability to regain its shape after deformation, later finding extensive application across various disciplines (Dahlberg et al., 2015).

In this discourse, resilience is used synonymously with psychological resilience. Definitions across diverse disciplines highlight two fundamental aspects:

- 1. Individuals encountering adverse circumstances with substantial impacts on their lives and
- 2. Individuals exhibiting adaptability in response to changing situations (masten, 2001; schoon & bynner, 2003).

Adverse situations or vulnerabilities within the resilience context encompass natural or man-made disasters, relationship loss trauma, chronic illness, domestic violence, and physical abuse (Masten & Narayan, 2012).

An individual's ability to adapt and recover effectively during challenging circumstances signifies resilience. A comprehensive delineation of resilience includes maintaining a stable trajectory of healthy functioning post-trauma, consciously progressing positively with insights gained from prior adverse experiences, the capacity of dynamic systems to adapt successfully to disturbances threatening their viability, and the utilization of resources to sustain well-being (Southwick et al., 2014). Psychological resilience, as defined by the American Psychological Association (2014, as cited in Wu et al., 2013), is "a process of effective adaptation in response to adversity, trauma, tragedy, threats, or significant stressors, such as family and relationship issues, serious health concerns, or financial problems."

#### 3. Gender and Resilience

Gender roles, cultural disparities, regional variations, financial circumstances, and biological factors contribute to the exposure of men and women to diverse risks, particularly evident when women confront gender-based vulnerabilities (Bhadra, 2017). Previous research has aimed to elucidate the roles and impacts of gender and responsibilities within socio-ecological systems (Kumar & Ravi, 2020) and their influence on the perceptions of men and women regarding disasters (Sultana, 2010), as well as "post-disaster work and recovery" (Fothergill, 1996). This is particularly pertinent in the current context of COVID-19. Theories such as Feminist Political Ecology (Rocheleau et al., 1996) and Social Vulnerability perspectives elucidate how women from various socioeconomic backgrounds, households, and geographic locations perceive, experience, and manage events (Cutter, 2005). On that account, a rural and urban divide in women's resilience and differences in the manifestation of resilience among men and women are undeniably palpable.

#### 4. Rural Women and Resilience in the Face of COVID-19

Rural women, constituting a significant segment of the global population, encounter vulnerabilities, particularly pronounced in developing nations, where they constitute 43% of the agricultural workforce (WHO, 2017). Eighty-nine percent of global agricultural employment occurs in rural regions (International Labour Organization, 2020). Facilitating rural women's access to agricultural resources holds paramount importance in alleviating hunger, poverty, and achieving the Sustainable Development Goals by 2030. In India, where 65.13% of the populace resides in rural areas, a large proportion engages in daily-wage agricultural labor. Despite their substantial contributions to family income, women encounter challenges such as illiteracy and limited land ownership (Census, 2011). A persistent patriarchal culture influences decision-making within families (Bhasin, 2007). Resilience emerges as crucial in addressing shocks like the COVID-19 pandemic, disrupting normalcy, and exacerbating global gender-based violence (Rieger, 2022). The International Day of Rural Women in 2020 underscored the importance of bolstering rural women's resilience amidst the pandemic for sustainable livelihoods and well-being.

India witnessed a surge in domestic violence during COVID-19, exacerbated by economic disruptions, income loss, and confinement (Krishnakumar & Verma, 2021). Only a fraction of victims seek assistance, hindered by limited access to mobile phones in rural areas (NFHS-4, 2017). The UN urged member nations to prioritize women's safety in pandemic responses, emphasizing emergency measures (UN, 2020). Research indicates women's adherence to health protocols during pandemics, rendering them receptive to training and interventions enhancing resilience (Galasso et al., 2020). Reflecting on the past year, the challenges faced by rural women underscore the ongoing significance of addressing gender disparities, fostering resilience, and ensuring inclusive development. The literature exploring definitions and explanations of resilience, the intersection of gender and resilience, and the resilience of rural women in the context of COVID-19 all merge towards a deeper understanding of resilience through the lens of the cognitive triad and psychological capital.

# 5. Theoretical Lenses - Positive Cognitive Triad and Psychological Capital

From a cognitive viewpoint, depressive disorders are marked by individuals' negative views of themselves, the world in general, and their future (Beck, 1979). A positive cognitive triad concerning the self, the world, and the future (Mak, Ng & Wong, 2011) has been considered a protective factor against depressive symptoms (Pittard et al., 2021). The positive cognitive triad of hope, worldview, and self-esteem could be perceived as potential mediators between resilience and well-being (Mehta et al., 2019). Interweaving resilience, cognitive triad and psychological well-being, Tugade and Fredrickson (2004) identified self-confidence, hope for the future and positive perception of the world, as attributes of highly resilient individuals (Thompson, 2019).

PsyCap is defined as "an individual's positive psychological state of development, characterized by high levels of the four elements of HERO - Hope, Efficacy, Resilience, and Optimism" (Luthans, et al., 2007). The PsyCap components of HERO in women are excessively influenced and bound by the cultural web. In a rural context, psychological capital based on cognitive aspects seems more crucial than financial or social capital, which largely depends on external factors (Luthans et al., 2004). Resilience may be perceived as the manifestation of emotional growth, concomitant with sustainability in a rural scenario.

Hence, the present review symbolizes resilience through two lenses:

- Positive cognitive triad (of Self, Others/World, and Future) (Mak, Ng & Wong, 2011)
- Psychological capital (Luthans et al., 2004)

Positive cognitive triad as a theoretical base considers resilience as a subjective aspect which is within the mental space that depends on a person's perception. It further explains that individuals' perceptions and thoughts are based on "their beliefs and views about themselves, their beliefs and views about the world and their beliefs and views about their future". Both positive cognitive triad and PsyCap put forward a strong argument in favour of understanding rural women's resilience based on PsyCap applied through the positive cognitive triad lens. The patriarchal background and the collectivist nature of the Indian rural community have deep influences on rural women's perception of challenges that in turn affect their internal states (Chadda & Deb, 2013).

In literature, we often find rural women's resilience being discussed in the context of community and how building their resilience contributes to the sustainable development of a community (United Nations, 2015). Hence, rural women's psychological resilience can be considered as a foundation for building resilient individuals, families, and sustainable communities in the wake of potential and unprecedented challenges like COVID-19. Research indicates resilience "as a dynamic process of adaptation that can potentially be trained" (Chmitorz et al., 2018). This upholds the idea of crafting training programs for rural women that enhance their adaptability. Development of a tailor-made intervention calls for systematic assessment of this dynamic process of resilience in women.

Table 1: Two Theoretical Lenses: Positive Cognitive Triad & Psychological Capital

Theory/Author/Year	Definition	Components	Component- definition	
Positive Cognitive Triad (Mak, Ng & Wong, 2011)	"Resilient individuals may have a positive view about themselves, the	Self	"One's views about self"	
	world, and the future (hereafter referred to as the positive cognitive	World	"One's view about the world" "One's view about the future"	
	triad), which promotes their positive emotionality and life satisfaction and protects them from depression"	Future		
Psychological Capital (PsyCap) (Luthans et al., 2004)	"An individual's positive psychological state of development characterized by high levels of hope, efficacy, resilience, and optimism"	Hope Efficacy Resilience Optimism	"Having the will to succeed and the ability to identify, clarify and pursue the ways to succeed". "Having the confidence to take on and put in the necessary effort to succeed at challenging tasks". "Sustaining effort and bouncing back in response to problems and adversity to attain success".	

Theory/Author/Year	Definition	Components	Component- definition
			"Having a positive anticipation about success, both now and in the future".

#### 6. Resilience Measures

The groundbreaking work "Resilience and Stability of Ecological Systems" by Holling (1973) played a pivotal role in popularizing the term "resilience" and laying the foundation for studies integrating ecological and other forms of resilience. The Dispositional Resilience Scale (Bartone, 1989) evaluated three primary components of hardiness (control, communication, and challenge), serving as the cornerstone of resilience assessment. The Resilience Scale (Wagnild & Young, 1993), comprising 25 items, emerged as the initial direct measure of resilience, assessing one's capacity to endure life stressors, thrive, and interpret challenges.

Typically, psychological measures/tools/instruments are developed, evaluated, and validated in Western contexts before being adapted to different geographical settings. However, erroneous administration and translations of Western instruments can yield inconsistent research outcomes. Additionally, utilizing Western measures within the Indian population may encounter challenges related to "reliability and validity issues" (Pennock, 2016). Furthermore, it's essential to acknowledge that Eurocentric and Western perspectives may not fully align with native researchers' interpretations of Indian culture, religions, traditional practices, geographical features, and socio-economic status.

# 7. Significance of Assessing the Resilience of Indian Women

Assessing the resilience of Indian women holds significance due to their unique challenges and vulnerabilities stemming from gender disparities within Indian societies (Kalra et al., 2012). Understanding their resilience can pinpoint specific areas requiring support to tackle issues like gender-based violence, unequal access to education, and limited economic opportunities. Education serves as a pivotal factor influencing resilience. Evaluating the resilience of Indian women offers insights into the correlation between education (Masten & Reed, 2009) and resilience, aiding in the development of strategies to enhance educational access and foster an environment supportive of women's educational empowerment.

A nexus exists between resilience and economic independence (Gupta et al., 2015). Through evaluating the resilience of Indian women, strategies can be identified to bolster their economic resilience, fostering financial inclusion and addressing barriers hindering women's economic advancement. Psychological strengths contribute to resilience (Arora & Prakash, 2018). Evaluating the resilience of Indian women can shed light on the psychological strengths underpinning their mental well-being, facilitating the development of targeted mental health interventions and support systems. By comprehending their ability to rebound from adversity, policymakers and practitioners can devise gender-sensitive policies and interventions that promote empowerment, fostering an environment where women can actively shape their lives and communities.

#### 8. Assessment of Resilience in Indian Women

We endeavour to identify resilience measures for Indian women rooted in the theoretical frameworks proposed by researchers, namely the cognitive triad and psychological capital. Therefore, we are examining the theoretical frameworks of the available resilience measures. Through scrutiny of the theoretical framework, we can ascertain cultural relevance and sensitivity, assess the feasibility of translation and adaptation for Indian women (with authors' permission), and evaluate whether the frameworks encompass perspectives on psychological resources and orientations towards self, others, and the future, aligning with the specific social conditions of Indian women. Thus, a critical review of existing resilience measures' theoretical frameworks offers insights into which frameworks are congruent with the resilience concept applicable to Indian women. This informs the development of targeted policies and interventions tailored to the specific needs of Indian women.

#### 9. METHOD

## 9.1 Sources, Search Strategies and Selection Processes

A comprehensive literature search identified resilience measures, including systematic reviews, reliability and validity assessments, and resilience measurements, evaluations, instruments, and scales available online in English Electronic databases including Google Scholar, PubMed, and Scopus were systematically scrutinized to retrieve resilience measures. The search terms included "resilience scales," "assessment," "questionnaire," "measure," "instrument," "inventory," "schedule," "checklist," "rural women in India," "Indian rural women," "rural culture," "cultural sensitivity," "social norms," "resilience," "psychological resilience," "reliability and validity," "cognitive triad," "positive cognitive triad," and "Psychological Capital/PsyCap." The authors then reviewed citation lists of selected research papers to gather additional references. Given the relatively brief history of resilience research, efforts were made to include all published resilience measures. Eleven systematic review papers were thus retrieved from 2007 to January 2024, of which six were included in our study. Additionally, twenty research papers focusing on the development of the selected resilience measures were integrated into the study. The authors manually extracted data, organizing them into an Excel sheet with details of the studies. The thematic analysis and coding of the compiled list of resilience measures was done which was represented in an Excel sheet with comprehensive details (Fig. 2: Flow Diagram of Review Process).

An exhaustive search yielded 109 journal papers on resilience measures. Out of 11 systematic studies screened initially, only 5 were included due to restricted access. Two lists of measures were generated, totalling 27 adolescent and adult resilience measures, with 20 selected for final review after filtering and permissions.

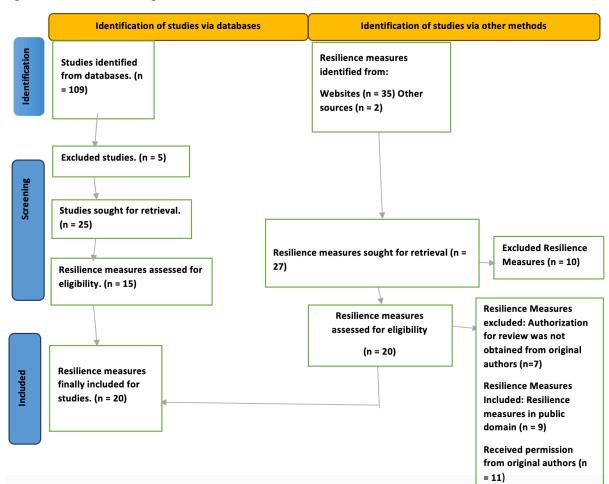


Figure 1: PRISMA Flow Diagram of Selection Process

## 10. Results & Discussion

Table 2: List of Selected Resilience Measures for Review

Measure	Authors (Year)	Population	Sub-constructs	Ite ms	C.T.	P.C.
Resilience Scale (RS) (25) & RS-14	Wagnild & Young (1993, 2010)	Adults, Cardiac Pain Patients	Personal Competence, Acceptance of Self and Life	25 / 14	Self, Futur e	<b>√</b>
Ego Resiliency Scale (ER 89)	Block & Kremen (1996)	Young Adults	Confident Optimism, Insight, Expressiveness	14	✓	✓
Baruth Protective Factors Inventory	Baruth & Carroll (2002)	General Adults	Adaptable Personality, Fewer Stressors	16	Self, Worl d	<b>√</b>
Adolescent Resilience Scale (ARS)	Oshio et al. (2003)	Adolescents, Younger Adults	Novelty Seeking, Emotional Regulation, Positive Future Orientation	21	Self, Futur e	<b>√</b>
Brief Resilient Coping Scale (BRCS)	Sinclair & Wallston (2004)	Adults, Rheumatoid Patients	Coping with Stress Adaptively	4	Self, Futur e	<b>√</b>
Devereux Adult Resilience Survey	Mackrain (2007)	Adults, Teachers	Relationships, Internal Beliefs, Initiative, Self-control	23	✓	<b>√</b>
Brief Resilience Scale (BRS)	Smith et al. (2008)	Adults, Chronic Pain Patients	Ability to Recover from Stress	6	Self	Resilie nce
Resilience in Midlife (RIM)	Ryan & Caltabiano (2009)	General Adults	Self-efficacy, Perseverance, Internal Control, Coping	25	<b>√</b>	<b>✓</b>
Response to Stressful Experiences	Johnson et al. (2011)	Military, Veterans	Meaning Making, Active Coping, Cognitive Flexibility	22	Self, Futur e	<b>√</b>
Child & Youth Resilience Measure	Ungar & Liebenberg (2011)	Adolescents, Adults	Individual, Relational, Community	28	✓	<b>√</b>
Scale of Protective Factors (SPF)	Ponce-Garcia et al. (2015)	Professionals	Social Support, Skills, Planning, Goal Efficacy	24	<b>√</b>	<b>√</b>
Predictive 6-Factor Resilience (PR6)	Rossouw & Rossouw (2016, 2017)	Adults, Professionals	Vision, Composure, Tenacity, Collaboration	16 / 50	✓	<b>√</b>
Essential Resilience Scale	Chen et al. (2016)	Migrants, Rural and Urban Adults	Physical, Emotional, Social Resilience	15	<b>√</b>	✓
Protective Factors for Resilience	Harms et al. (2017)	Adults, Adolescents	Personal, Family, Peer Resources	20	✓	✓
Resilience Protective Factors Check	Powell et al. (2020)	Undergraduates	Individual, Family, Community	25	✓	<b>√</b>
Hardy-Gill Resilience Scale	Hardy (2004, cited Resnick)	Older Adults	Response to Stressful Events	9	Nil	Nil
Psychological Resilience	Windle et al. (2008)	Older Adults	Self-esteem, Interpersonal Control, Competence	19	Self	✓
Resilience Appraisal Scale	Johnson (2010)	Clinical Population	Social Support, Emotional Regulation, Problem Solving	12	✓	✓
Multidimensional Resilience (MDRS-H)	Singh & Khullar (2022)	Adults, Older Adults	Internal Control, Acceptance, Assertiveness, Optimism, Humor	46	✓	✓
Resilience Scale	Lakshmi & Narain (2017)	Adolescents, Adults, Older Adults	Perseverance, Composure, Self-reliance, Faith	30	✓	<b>√</b>

C.T.: Cognitive Triad (Self, World, Future)

P.C.: Psychological Capital (Hope, Efficacy, Resilience, Optimism)

**√**: Includes all components

# **10.1 Gender-Specific Resilience Measures**

Table 2 reveals that the only scale applicable to both rural and urban adult populations is the Essential Resilience Scale (Chen et al., 2016), which is non-gender specific. Although a vernacular version (Kannada) of the Connor-Davidson Resilience Scale (Sidheek et al., 2017) was identified during the literature search, the review process did not uncover a culturally sensitive, gender-specific scale suitable for Indian rural women.

## 10.2 Resilience Measures based on Positive Cognitive Triad and Psychological Capital

A rigorous thematic analysis of the domains and items of the resilience measures revealed words and phrases that reflected the positive cognitive triad and PsyCap perspectives of the participants. The following are a few exemplars selected from the finalized resilience measures.

# 10.3 Positive Cognitive Triad

- Self "I tend to take a long time to get over setbacks in my life"- Brief Resilience Scale (Smith et al., 2008)
- World "Believe in myself even when teased, looked down upon and made fun of" Essential Resilience Scale (Chen et al., 2016)
- Future "I actively look for ways to replace the losses I encounter in life" Brief Resilient Coping Scale (Sinclair & Wallston, 2004).

## 10.4 Psychological Capital

- Hope "I am hopeful about the future" Devereux Adult Resilience Survey (Mackrain, 2007).
- Efficacy "Can get through difficult times" Resilience in Midlife (Ryan & Caltabiano, 2009).
- Optimism "My friends/family are optimistic" Scale of Protective Factors (Ponce-Garcia et al., 2015)
- Resilience "I keep my cool under stressful situations" Predictive 6-Factor Resilience Scale (Rossouw & Rossouw, 2016).

Though the resilience measures do not indicate positive cognitive triad as its theoretical framework, the deductive thematic analysis points to the presence of all three components- (Self - one's view of oneself, World - one's view about what others think about him/her, Future - one's view about one's own future). The 12 measures included all three elements of the positive cognitive triad (Table 2). Correspondingly, the authors could not find any adult resilience measures with PsyCap as the major premise. However, 17 measures have items related to the four components of PsyCap (Table 2).

The thematic analysis of the items of 12 resilience measures revealed the presence of both a positive cognitive triad and the four components of PsyCap. These measures include the Ego Resiliency Scale (Block & Kremen, 1996), Devereux Adult Resilience Survey (Mackrain, 2007), Resilience in Midlife (Ryan & Caltabiano, 2009), Child and Youth Resilience Measure (Ungar & Liebenberg et al., 2011), Scale of Protective Factors (Ponce-Garcia et al., 2015), Predictive 6-Factor Resilience Scale (Rossouw & Rossouw, 2016), PR6-50 (Rossouw et al., 2017), Essential Resilience Scale (Chen et al., 2016), Protective Factors for Resilience Scale (Harms et al., 2017), Resilience Appraisal Scale (Johnson, 2010), Multidimensional Scale of Resilience-Hindi (Singh & Khullar, 2022), and Resilience Scale (Lakshmi & Narain, 2017).

Notwithstanding the resilience measures mentioned earlier, which suggest the existence of a positive cognitive triad and the four PsyCap components, it appears that the specific items comprising these measures may not align well with the experiences of rural women. These individuals may find it challenging to relate to the items and provide meaningful responses. A review of 19 validated measures of resilience (Windle, Bennett & Noyes, 2011) indicated varying qualities in their psychometric properties. Nevertheless, the Resilience Scale for Adults (Friborg et al., 2003), Brief Resilience Scale (Smith et al., 2008) and Connor-Davidson Resilience Scale (Connor & Davidson, 2008) have been frequently used worldwide (Salisu & Hashim, 2017). The Connor-Davidson Resilience Scale has been translated into local languages for its well-regarded psychometric ratings (Gucciardi et al., 2011; Wang et al., 2010 as cited in Salisu & Hashim, 2017).

The review highlights the inclusion of two Indian resilience scales: the Multidimensional Scale of Resilience-Hindi (Singh & Khullar, 2022) and the Resilience Scale (Lakshmi & Narain, 2017). Notably, both scales incorporate elements of the positive cognitive triad and psychological capital. This finding underscores the importance of these constructs in the Indian context, suggesting that resilience in this population is closely linked to an individual's cognitive outlook and psychological resources.

### 11. Conclusion

Assessing the resilience of Indian rural women is crucial for understanding its dynamics and its role in fostering a sustainable community. The authors propose examining the resilience of Indian rural women through the lenses of the positive cognitive triad and psychological capital (PsyCap). However, current measures lack

alignment with these theoretical frameworks. While deductive thematic analyses of existing measures reveal elements of the positive cognitive triad and PsyCap, the diverse cultural contexts within India, variations in resilience dynamics, and gender-specific manifestations underscore the need for a culturally sensitive, gender-specific resilience measure.

### 11.1 Implications and Recommendations

The study recommends defining resilience from a gender-specific perspective, focusing on the psychological factors affecting rural women in India, particularly in light of the gender disparities highlighted by COVID-19. A gender-sensitive approach is essential for fostering resilient rural communities, and the increased psychological impact on vulnerable populations during the pandemic's second wave further emphasizes the need for ongoing assessment of community emotional needs after disruptive events. The review advocates for developing a standardized resilience measure tailored to rural women, based on the positive cognitive triad and PsyCap framework, which would be valuable for stakeholders in designing developmental programs. Additionally, government-sponsored initiatives and mechanisms should focus on enhancing psychological capital in rural women across villages to build a more resilient and sustainable community.

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