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Self-love and its relation with stress among a sample of autoimmune patients

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Abstract
This descriptive analytical study aimed to examine the relationship between unconditional self-love and perceived stress among 80 patients with rare autoimmune diseases at Al-Makassed Hospital in Jerusalem. Using the Perceived Stress Scale and the Unconditional Self-Love Scale, results showed a significant negative correlation: higher self-love was associated with lower stress. Economic status also showed a significant negative relationship with stress. The findings suggest incorporating stress management and self-love practices into treatment plans. Since autoimmune diseases have no cure, addressing psychological factors is essential alongside medication.

Keywords: Unconditional self-love, perceived stress, autoimmune diseases, psychological well-being, chronic illness, stress management, rare diseases

Introduction

One of the vital needs for a developing person to grow and flourish is having a positive self-view, which stems from self-acceptance and self-love. According to Rogers, this cannot be fully realized without unconditional self-acceptance (Underwood, 2020) [62].

Although the absence of unconditional self-love is often a core issue behind psychological distress and suffering manifested across a wide range of mental health and substance use disorders there is minimal scientific research addressing this topic. In fact, it could be argued that the central goal of counseling is to enhance self-relationship and alleviate emotional pain (Underwood, 2020) [61].

Increasing unconditional self-love may contribute to stress reduction, enhance well-being, and support individuals dealing with various mental disorders (Surti, 2021) [61]. Unconditional self-love comprises two essential components for maintaining psychological health:

1 **Self-compassion:** Which involves recognizing the imperfect nature of life and accepting that mistakes are part of the human experience. This promotes warmth and care toward the self, even in moments of perceived inadequacy.
2 **Self-efficacy:** Which encourages focusing on present and future solutions rather than being stuck in past failures (Surti, 2021) [61].

Scientific studies indicate that giving and receiving love improves physical health and reduces stress by increasing levels of oxytocin, dopamine, and adrenaline. Love has also been associated with reduced blood pressure, anxiety, pain, and stress, in addition to improved immune and cardiovascular function (Tarr, 2021) [58].

Millions of people worldwide suffer from autoimmune diseases, which occur when the immune system fails to recognize the body's own healthy cells and instead attacks its tissues and organs (McKie, 2022) [33]. Psychological stress is considered one of the primary triggers and contributors to the onset and progression of autoimmune diseases. According to the American Psychological Association, stress can reduce the number of immune cells responsible for fighting viruses. While an inflammatory response is essential for combating pathogens, chronic or repeated stress responses can lead to serious health problems (Jump, 2023) [25].

Problem Statement

According to Maslow's hierarchy of needs, love and belonging are among the fundamental human necessities for growth (Montag *et al*., 2020) [35]. Love is a teachable emotion people learn to love themselves based on how they were treated by their parents and social environment. It becomes a conditioned response to external stimuli and behaviors. Unfortunately, societal or parental conditions for receiving love often hinder the development of unconditional self-love (Seaward, 2020) [50].

Unconditional self-acceptance has been linked to psychological anxiety and stress (Paloș & Vîșcu, 2014). Furthermore, various studies confirm that stress negatively affects immune system function (Jump, 2023) [25].

Based on the above, the study problem is summarized as follows:

Is there a relationship between unconditional self-love and perceived stress among patients diagnosed with autoimmune diseases at Al-Makassed Hospital?

Study Questions

1 What is the level of perceived stress among autoimmune disease patients?
2 What is the level of unconditional self-love among autoimmune disease patients?
3 Is there a statistically significant relationship between unconditional self-love and perceived stress?
4 Does the level of perceived stress or unconditional self-love vary by demographic variables such as age, gender, marital status, and economic status?

Study Hypotheses

1 There is no statistically significant correlation between unconditional self-love and perceived stress among autoimmune disease patients.
2 There are no statistically significant differences in perceived stress levels due to demographic variables (sex, age, marital status, economic status) at the 0.05 significance level.
3 There are no statistically significant differences in unconditional self-love levels due to the same demographic variables at the 0.05 significance level.

Study Objectives

The current study aims to:

1. Assess levels of perceived stress and unconditional self-love in patients with autoimmune diseases.
2. Examine the relationship between perceived stress and unconditional self-love.
3. Investigate whether stress and self-love levels vary according to demographic factors (gender, age, economic and social status).

Significance of Study

1. To contribute to the limited body of research on **unconditional self-love**, despite its centrality in psychological therapy.
2. To highlight the negative effects of chronic stress on mental and physical health.
3. To draw attention to the psychological factors involved in the onset and progression of autoimmune diseases.
4. To emphasize the importance of self-love in reducing stress and promoting overall well-being.
5. To encourage the development of self-love training programs aimed at improving internal and external relationships.
6. Since autoimmune diseases have no cure, managing stress through psychological interventions may slow disease progression and improve quality of life.

Key Definitions

Unconditional Self-Love

Defined by Irvan as "care, respect, acceptance, willful commitment, and mindful awareness and understanding." According to Samiei (as cited in Underwood, 2020) [61], unconditional self-love includes themes of self-acceptance, forgiveness, care, and compassion.

Operational Definition: The ability to maintain warmth, care, and affection toward oneself even in the face of failure or disappointment.

Stress

Stress refers to any factor that significantly disrupts the body's internal balance (Schneiderman *et al*., 2005). It includes life events that exceed one's perceived psychological or physiological capacity to cope (Crosswell & Lockwood, 2020) [12].

Operational Definition: As measured by the Perceived Stress Scale (PSS), stress involves feelings of tension, anxiety, lack of control, and emotional strain.

Autoimmune Diseases

Chronic conditions in which the immune system mistakenly attacks healthy tissues, leading to organ damage. Examples include rheumatoid arthritis, systemic lupus erythematosus, and type 1 diabetes mellitus.

Operational Definition: Patients clinically diagnosed with autoimmune diseases at Al-Makassed Islamic Charitable Society Hospital, based on medical and laboratory standards.

Literature Review

Love, Emotion, and Psychology

For a long time, love has been considered a complex emotion that is difficult to define or study, often remaining the domain of poets, philosophers, and artists. Psychology, for the most part, maintained a hands-off approach (Seaward, 2020) [50]. However, in recent years, love has been recognized as an essential motivational and healing tool, moving beyond its traditional place in poetry and cinema to become relevant in classrooms, corporate boardrooms, and even operating rooms. Love is now acknowledged as a powerful internal resource that cannot be ignored; it is the epitome of eustress, and its absence represents distress (Seaward, 2020) [50].

Leo Buscaglia is credited with bringing the theoretical concept of love into the academic field. After his studies in the 1960s at the University of Southern California, he introduced ideas about love and emotion that have significant implications for both eustress and distress (Seaward, 2020) [50].

Unconditional Self-Love

Unconditional self-love is a subject that has been written about but has received minimal research (Spendlove, 1999) [54]. Aristotle, in his *Nicomachean Ethics*, argued that the foundation of love for others is rooted in the love one has for oneself. This suggests that love begins with unconditional self-love, and loving others is a natural outcome of one's personal well-being (Gallagher, 1999) [19].

Unconditional self-love includes compassion for oneself, self-acceptance, and attitudes of self-forgiveness while caring for others and avoiding selfishness. It also involves self-awareness and the acceptance of aspects of oneself that may be painful to confront (Underwood, 2020) [61].

Unconditional self-love enables us to see our true selves free from the influence of ego, judgment, and criticism. The path of unconditional self-love leads to self-development and becoming the best version of ourselves. Treating oneself as one would a best friend is a powerful practice. Every individual deserves to be loved, supported, and valued (Bosworth, 2019) [7].

Unconditional Self-Love as a Teachable Emotion

Buscaglia postulated that love is a teachable emotion, learned through specific stimuli and behaviors. For example, an infant learns love through contact with their parents in the home environment. Love, and especially unconditional self-love, is taught, not innate. Parents often prevent their children from fully expressing their feelings and emotions (e.g., "Don't cry," "Stop laughing," "Wipe that smile off your face"). As a result, children's emotions remain suppressed, including the emotion of love. This inability to express emotions causes emotional pain from rejection or denial of love. As individuals mature and their ego defenses strengthen, love may fall into dormancy (Seaward, 2020) [50].

Defining love is challenging because it is often linked to many other concepts such as sex, romance, attraction, needs, security, and attention. Furthermore, love manifests in various forms, such as joy, happiness, jealousy, dissatisfaction, and pain. However, there is one type of love that is vital for the positive growth process of self-discovery: the love that one needs to work on, feel, and experience before it can be shared (Seaward, 2020) [50].

Components of Unconditional Self-Love

Research conducted by Maharaj and April (2013) [31] on unconditional self-love and its role in leadership and employee engagement identified five components that make up unconditional self-love:

- **Self-Knowledge:** This refers to understanding oneself from the core, independent of selfishness or self-obsession. It contrasts with the mythical Greek story of Narcissus, who derived his sense of self from his reflection.
- **Self-Renewal:** Actions that demonstrate care for one's physical, mental, and spiritual well-being. This affirms the idea: "You can't care for others unless you first care for yourself."
- **Self-Transcendence:** Avoiding self-centeredness and seeing things as they truly are, transcending the ego to build better relationships with others.
- **Self-Being**: This involves being one's authentic self, without waiting for validation from others or conforming to external expectations.
- **Self-Acceptance:** Accepting both the positive and negative aspects of one's personality. According to Maslow, self-acceptance enables individuals to worry less about external judgments (Maharaj & April, 2013) [31].

Maslow and Rogers' theories on unconditional self-love also emphasize components such as self-liking, self-acceptance, self-appreciation, self-awareness, and self-actualization (Samiei, 2015) [47].

The Importance of Unconditional Self-Love

While positive emotions like gratitude, love, contentment, joy, and interest have received relatively little attention in research, they are linked to vital outcomes such as higher incomes, relationship satisfaction, and improved physical health (Fredrickson *et al*., 2008) [18]. The ability to treat oneself positively has a significant impact on psychological functioning, enhancing self-esteem, motivation, and determination. In contrast, a lack of positive self-treatment is associated with mood and anxiety disorders (Fields & Kuperberg, 2015) [16].

Unconditional self-love forms the foundation for loving others and building healthy relationships. People who do not love themselves may struggle to believe they deserve love, leading them to choose unhealthy relationships and avoid healthy ones (Campbell & Foster, 2002) [9]. Love has been shown to promote health, as scientific research demonstrates that both giving and receiving love can improve health and reduce stress by increasing oxytocin, dopamine, and adrenaline. Studies also show that love can lower blood pressure, anxiety, pain, and stress while boosting immunity and cardiovascular health (Tarr, 2021) [58].

Participating in joyful activities such as expressing love may help activate brain regions responsible for emotions, attention, motivation, and memory (e.g., the limbic system). It also plays a role in regulating the autonomic nervous system, reducing stress and promoting relaxation (Esch & Stefano, 2005) [14]. Additionally, love reduces anxiety by promoting an inhibitory tone in specific brain areas, highlighting its potential to promote health, well-being, and productivity (Esch & Stefano, 2005) [14].

Lack of Unconditional Self-Love and Stress

Buscaglia (2020) noted that many of us never truly learn to love, often due to the early emotional patterns learned in childhood. He argued that in order to love others, we must first learn to love ourselves. Unfortunately, unconditional self-love has often been misunderstood as selfishness and discouraged in many communities. Humility has been favored, sometimes at the cost of unconditional self-love. The greatest barrier to expressing unconditional self-love is the conditions people place on themselves for self-acceptance, such as physical appearance or perceived capabilities. This lack of self-love leads to low self-esteem and contributes to a negative feedback cycle, resulting in chronic stress and unhappiness (Seaward, 2020) [50].

Stress

Stress has attracted attention from various fields, including medical professionals, anthropologists, social scientists, psychologists, and zoologists. Hans Selye, the father of stress research, defined stress as the body's non-specific response to a demand (Selye, 1956) [51]. It is also described

as a biological and psychological response to perceived threats when resources are thought to be insufficient (McLeod, 2023). Stress triggers physiological reactions that seek to restore bodily equilibrium and protect us from harm (Selye, 1956) [51]. Historically, stress was essential for survival in the face of physical threats, but in modern times, much of the stress people experience is self-generated (Selye, 1956) [51].

The Effects of Chronic Stress on Health

Chronic stress can lead to harm in multiple areas of life, including mental, physical, social, and professional domains. For example, stress can elevate heart rate and blood pressure, increase adrenaline and cortisol levels, and, over time, contribute to cardiovascular problems such as heart attacks and strokes (Saripalli & Vogel, 2022) [48]. Chronic stress also affects brain function, leading to cognitive, emotional, and behavioral dysfunction (Mariotti, 2015) [32].

In the immune system, stress activates a neuroimmune circuit that releases hormones and cytokines related to infections and tissue damage. While this response is helpful in the short term, prolonged stress can lead to chronic diseases, including autoimmune disorders (Mariotti, 2015) [32].

Stress and Autoimmune Diseases

Stress is widely recognized as a key factor in the development and exacerbation of autoimmune diseases. Chronic stress, by elevating cortisol levels and activating immune responses, can contribute to conditions like autoimmune disorders (Montero *et al*., 2017) [36]. Research shows that up to 80% of patients with autoimmune diseases report emotional stress before the onset of their condition (Stojanovich & Marisavljevich, 2008) [55]. Given the lack of a cure for autoimmune diseases and the additional stress they cause patients, managing stress is crucial for treatment. Incorporating stress management strategies, along with identifying triggers such as psychological stress, is essential in treating autoimmune diseases (Stojanovich & Marisavljevich, 2008) [55].

Previous Studies

Autoimmune diseases complex, chronic conditions that challenge both body and mind are increasingly linked to psychological factors, particularly perceived stress. A growing body of research confirms that the experience of stress doesn't just follow illness; it can trigger flares, amplify symptoms, and even influence the onset of autoimmune disorders.

Recent studies provide compelling evidence for this connection. For example, Patterson (2022) [41] reported that higher perceived stress in patients with systemic lupus erythematosus (SLE) was directly associated with increased pain, fatigue, and overall disease activity. Similarly, Polinski *et al*. (2020) [44] found that each incremental rise in stress perception raised the risk of inflammatory arthritis by 10%. These findings suggest that psychological states may have measurable effects on immune regulation and inflammation.

Physiological data further support this link. Lopez *et al*. (2017) [36] documented elevated cortisol levels both salivary and hair-based in women with autoimmune conditions, indicating chronic activation of the stress response system. Plantinga *et al*. (2017) [43] linked high stress to cognitive difficulties such as memory lapses and poor concentration, adding another layer to the burden faced by patients.

Interestingly, research also reveals that stress is not only a result of illness but often arises from social determinants such as economic instability and gender roles. Studies by Bettini *et al*. and Viertiö (2021) emphasize that women, particularly those with lower socioeconomic status, tend to report significantly higher stress levels. The prevalence of autoimmune diseases in women accounting for nearly 80% of cases according to Angum *et al*. (2020) [3] may be partly explained by this chronic psychosocial strain.

However, there is a promising flipside: psychological resilience and self-compassion can mitigate the harmful effects of stress. Helminen (2021) [22] and Jennifer *et al*. (2021) demonstrated that self-compassion reduces stress sensitivity and improves emotional regulation. Furthermore, unconditional self-acceptance an individual's ability to value themselves regardless of external approval has been shown to buffer against depression and anxiety (Flett *et al*., 2003; Bingöl & Batık, 2018) [17, 5].

Mindfulness-based interventions have gained traction as well. Taub *et al*. (2021) [59] found that mindfulness-based stress reduction (MBSR) significantly improved quality of life and lowered psychological distress in lupus patients. Similarly, Alrabadi (2022) [1] highlighted the benefits of mindfulness techniques in improving emotional well-being and disease control among patients with autoimmune hepatitis.

Collectively, these findings underscore the need to view autoimmune illness through a biopsychosocial lens one that recognizes emotional health as central to disease management. Beyond medication, promoting unconditional self-love, emotional resilience, and stress-reduction strategies may be key to improving outcomes in this vulnerable population.

Methodology

Study Approach

In order to achieve the aims of the study, the researcher used the descriptive method. It is defined as the curriculum that studies a phenomenon, event or current issue that can be obtained from which information can be answered on research questions without interference from the researcher. Through which the researcher tries to describe the phenomenon under study, and to analyze its data, and to clarify the relationship between the components and opinions that are presented around it, the processes that it includes and the effects that arise, and it is one of the forms of analysis and scientific interpretation organized to describe a phenomenon or problem, and its classification, analysis and subject to careful studies by examination and analysis.

Study Population

The study population consisted of all patients diagnosed with rare autoimmune diseases attended Al-Makassed Hospital - Jerusalem from 2019-2022.

The chosen autoimmune diseases suggested by specialized doctors at Al-Makassed Hospital were (SLE, Sjogren Syndrome, Multiple Sclerosis, celiac disease, Rheumatoid arthritis).

The study Sample

A questionnaire was distributed over (80) individuals forms, i.e. approximately 66% of the study population. And tables (5.1), it shows the distribution of the study sample individuals.

Data collection

The researcher is an employee of the hospital where the study was conducted. After submitting the study proposal to the hospital administration and approving it, the researcher was provided, at his request, with contact information for all patients diagnosed with autoimmune diseases between the period 2019-2022.

Parts of the patients were interviewed face to face in the hospital, the other part were called by phone. The researcher clarified the questions in the two parts, and he was the one who filled in the answers according to the patients' answers.

Ethical consideration

Before the study, the proposal was sent to the hospital administration, explaining that the patients will be directed to the competent authorities when needed and based on the results of the study.

Verbal consent was obtained from all participants, and they were provided with study aims, objectives and procedure, and that they have the right not to participate in the study. Moreover, they informed by the researcher that data will only be used for research aims, and they can ask for the results if they want.

Describe the variables of the sample members

The distribution of respondents according to the sex variable that the rate of 28.7% for males and 71.3% for females. The Age variable shows that 50% for less than 30, and 20% form 31-40, and 12.5% from 41-50, and 17.5% for more than 50. The social status variable shows that 56.3% for married, 38.8% for single, and 2.5% for divorced, and 2.5% for widower. The variable of Economic situation shows that 26.3% for very good, and 47.5% for medium, and 26.3% for low.

Study Methods and Tools

This study employed the descriptive analytical approach to explore the relationship between unconditional self-love and perceived stress among patients diagnosed with autoimmune diseases. The descriptive method was used to observe, describe, and analyze the phenomenon without any interference by the researcher. Data were collected through two standardized psychological tools. The first was the Perceived Stress Scale (PSS) developed by Cohen *et al*. (1983), which includes 10 items rated on a five-point Likert scale and measures individuals' perception of stress in daily life. The second tool was the Unconditional Self-Love Scale (USL) developed by Splendlove (1999), which assesses self-love independently of performance or external conditions and classifies respondents into four categories based on their self-liking style. Both tools were translated into Arabic and validated by expert reviewers. Data collection involved face-to-face interviews at Al-Makassed Hospital and phone interviews, where the researcher personally explained the questions and recorded participants' responses. Ethical approval was obtained from the hospital administration, and verbal informed consent was secured from all participants.

Results

The study revealed that patients with autoimmune diseases reported a moderate level of perceived stress, with a mean score of 2.44 (SD = 0.704), corresponding to 61.2% on the Perceived Stress Scale. The highest stress was reported in items related to feeling nervous, stressed, and angry due to uncontrollable events. Similarly, the level of unconditional self-love was also found to be moderate, with a mean score of 2.017 (SD = 0.329), accounting for 67.2%. Notably, there was a statistically significant negative correlation ($r = -0.256$, $p = 0.022$) between unconditional self-love and perceived stress, indicating that higher self-love was associated with lower stress.

Analysis of demographic variables showed no significant differences in stress levels based on sex, age, or marital status. However, economic status significantly influenced perceived stress levels, with patients of lower economic status reporting higher stress. A similar trend was observed with self-love, where those with lower economic resources tended to score lower on the self-love scale.

Discussion and Conclusions

In the current study, measurement level of perceived stress 10-scale got a score of (2.44) and a standard deviation (0.704) and this indicates that the degree of perceived stress in the sample of autoimmune patients came medium degree, 61.2%. And this value is considered a significant level of stress. This high level of perceived stress agrees with Lopez *et al*. (2017) [36] study, that shows high degrees in perceived stress and salivary cortisol in autoimmune patients (Lopez, 2017). Also Harle *et al*. (2006) [21] study showed higher activity of the sympathetic nervous system which reflect non-relax mood in patients diagnosed with systemic lupus erythematosus (SLE) and rheumatoid arthritis (RA) (Harle, 2006) [21].

Psychological stress has been widely recognized as a contributing factor in the onset and progression of autoimmune diseases. As noted by Stojanovich (2008) [55], autoimmune patients are often exposed to chronic stress, which may not only initiate disease onset but also exacerbate its symptoms. A longitudinal study on individuals at risk for rheumatoid arthritis (RA) revealed that a one-point increase in perceived stress correlated with a 10% higher risk of developing inflammatory arthritis (IA). Similarly, a 10-year cohort study by Song (2018) [53] confirmed a strong association between stress-related disorders and autoimmune disease development.

Stress is not solely a trigger it can also be a consequence of living with autoimmune conditions. Chronic illness, frequent flare-ups, long-term treatments, financial burdens, and social challenges all contribute to heightened stress levels. Specifically, patients diagnosed with Systemic Lupus Erythematosus (SLE) were found to experience lower quality of life due to the physical, emotional, and financial implications of the disease. In this study, participants with low economic status reported higher perceived stress, often linked to difficulty in affording long-term treatments and basic life necessities.

A consistent theme that emerged was the negative correlation between unconditional self-love and perceived stress. Patients who reported higher self-love demonstrated significantly lower stress levels. While previous studies haven't directly measured the link between unconditional self-love and stress, several related studies support this

finding. For example, Alrabadi *et al*. (2022) [1] reported improvements in perceived stress and inflammatory markers among participants practicing mindfulness and meditation practices tied to self-love. Toussaint (2021) [61] emphasized the role of self-forgiveness in enhancing psychological well-being, while Helminen (2021) [22] demonstrated the protective effects of self-compassion on stress reactivity. Bingöl & Batık (2018) [5] found unconditional self-acceptance accounted for 16% of psychological well-being, reinforcing the value of nurturing a healthy relationship with oneself.

Participants in this study generally scored moderately on the Unconditional Self-Love Scale, revealing underlying obstacles such as self-judgment, failure to meet expectations, and body image concerns. These barriers align with Buscaglia's perspective that conditional self-acceptance tied to perfectionism, appearance, and performance prevents genuine self-love (Seaward, 2020) [50]. The study also observed psychological effects such as social withdrawal and denial among those with negative body image and low self-worth. In contrast, patients with stronger religious or philosophical grounding and a higher sense of self-acceptance were more likely to cope positively.

Further, based on the Teleological Coherence Hypothesis and general psychological theory, the breakdown in immune function can mirror psychological dysfunction, as all body systems function interdependently. Autoimmune patients may thus experience a compromised sense of self, as seen in impaired self-knowledge and mindfulness (Rasouliisini *et al*., 2019) [45]. Participants' stress responses often centered around uncontrolled life events such as loss, trauma, or personal crises, which may have preceded disease onset a phenomenon confirmed by 80% of patients in retrospective studies reviewed by Stojanovich & Marisavljevich (2008) [55].

The current study also explored whether perceived stress and unconditional self-love differed based on demographic variables. No statistically significant differences were found with respect to age, sex, or marital status. However, a notable finding was the inverse relationship between perceived stress and economic status, with lower economic status associated with higher stress levels mainly due to challenges in affording treatment. This aligns with Barchetta *et al*. (2020) [4], who found that economic downturns during COVID-19 worsened health outcomes and stress levels in patients with Type 1 diabetes.

Lastly, the gender distribution in this study (71% female) is consistent with existing literature indicating that autoimmune diseases disproportionately affect women. Angum *et al*. (2020) [3] reported that 80% of autoimmune disease cases occur in females, likely due to hormonal and genetic factors.

Conclusion

This study reinforces the growing body of evidence connecting psychological well-being and physical health in autoimmune patients. It emphasizes the importance of self-love not as a luxury but as a therapeutic tool that can reduce perceived stress, enhance quality of life, and possibly influence disease progression. Psychological resilience, rooted in self-acceptance and inner strength, emerges as a crucial factor in the holistic management of autoimmune diseases. Health professionals should consider integrating stress-reduction and self-love interventions into treatment programs to support both mental and physical health in this vulnerable population.

Recommendations

Integrate Psychological Support into Autoimmune Care Plans

Health institutions and clinics should incorporate psychological services such as stress management therapy, cognitive-behavioral interventions, and mindfulness training into the treatment protocols for autoimmune disease patients, recognizing the strong link between psychological stress and disease exacerbation.

Promote Unconditional Self-Love as a Protective Factor

Awareness campaigns and educational materials should highlight the importance of unconditional self-love, self-acceptance, and self-compassion as emotional tools that reduce perceived stress and enhance quality of life in patients with chronic illnesses.

Develop Targeted Interventions for Economically Disadvantaged Patients

Given the clear relationship between financial hardship and elevated stress, policymakers and healthcare providers should consider subsidized treatment options, financial aid, or social work referrals for autoimmune patients in low-income brackets to alleviate treatment-related stress.

Implement Mindfulness and Self-Compassion Programs

Hospitals, wellness centers, and NGOs should offer structured programs that promote mindfulness practices such as yoga, meditation, journaling, and breathing exercises, which are shown to reduce inflammation and perceived stress in chronic illness patients.

Train Healthcare Providers on the Psychosocial Aspects of Autoimmune Disease

Medical staff and caregivers should receive training to understand the psychological burden of autoimmune diseases and learn how to address self-esteem issues, body image concerns, and the impact of social stigma on patient mental health.

Early Psychological Intervention Post-Trauma

Since many participants reported traumatic life events preceding the onset of autoimmune diseases, it is recommended that trauma-informed care and psychological screening be made available following major life stressors, especially among individuals at risk of autoimmune conditions.

- Provide psychological care for people with autoimmune patients.
- Providing autoimmune patients with stress management programmers.

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