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Systematic Review

GRATITUDE, MINDFULNESS, AND LIFE SATISFACTION IN OLDER ADULTS

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ABSTRACT

As the global population continues to age, understanding the psychological resources that promote well-being in later life has become increasingly important. Gratitude and mindfulness have emerged as key constructs in positive psychology, with each independently associated with enhanced life satisfaction. However, their combined influence—particularly the mediating role of mindfulness in the gratitude-life satisfaction relationship among older adults—remains underexplored. This study examined the relationships between gratitude, mindfulness, and life satisfaction in older adults, with specific focus on mindfulness as a potential mediator and gender differences in these constructs. A cross-sectional design was employed with 297 older adults (aged 60-80 years; 56.8% male) recruited through convenience sampling. Participants completed the Gratitude Questionnaire-6 (GQ-6), Five Facet Mindfulness Questionnaire-15 (FFMQ-15), and Riverside Life Satisfaction Scale (RLSS). Data were analyzed using Pearson correlation, multiple regression, and independent samples t-tests. Findings revealed significant positive correlations between gratitude and life satisfaction ($r = .579$, $p < .01$) and between mindfulness and life satisfaction ($r = .295$, $p < .01$). However, no significant relationship emerged between gratitude and mindfulness ($r = .01$, $p > .05$). Regression analysis showed gratitude significantly predicted life satisfaction ($\beta = .57$, $p < .001$), explaining 33.5% of the variance. Mindfulness did not mediate the gratitude-life satisfaction relationship. Gender differences were observed only in mindfulness ($t = -2.39$, $p = .02$), with females scoring higher than males. Gratitude and mindfulness independently contribute to life satisfaction in older adults, though mindfulness does not serve as a mediator between gratitude and life satisfaction. These findings highlight the importance of cultivating both gratitude and mindfulness as distinct pathways to enhance well-being in later life.

I. INTRODUCTION

The global population is experiencing unprecedented aging. Life expectancy increased from 66.8 to 73.4 years between 2000 and 2019 (World Health Organization, 2020). This demographic shift presents both opportunities and challenges for societies worldwide. While increased longevity represents a significant achievement, it also raises concerns about maintaining quality of life and psychological well-being in later years (Christensen et al., 2009). Older adults frequently encounter distinct challenges, including deteriorating physical health, reduced cognitive abilities, and diminished social connections. All of these factors can adversely affect their overall quality of life (Pinquart & Sörensen, 2000). In response to these challenges, positive psychology has increasingly focused on identifying psychological resources that promote resilience and well-being in aging populations. Among these resources, gratitude and mindfulness have emerged as particularly promising constructs. Each has been independently linked to enhanced psychological well-being and life satisfaction (Emmons & McCullough, 2003; Brown & Ryan, 2003).

Gratitude can be defined as a multidimensional construct encompassing emotional, cognitive, and behavioral components (McCullough et al., 2002). When viewed as a stable disposition, gratitude represents a tendency to recognize and appreciate positive experiences and acts of kindness (McCullough et al., 2002). As an emotional

state, gratitude involves the feelings evoked in response to benevolent actions (Wood et al., 2010). Emmons and Shelton (2002) proposed that gratitude involves not only feeling thankful for another's actions but also recognizing that these actions were performed intentionally and out of goodwill.Research has consistently demonstrated a strong positive association between gratitude and life satisfaction (Park & Seligman, 2004; Wood et al., 2010). Life satisfaction is defined as "the overall quality of one's life as a whole, as positively evaluated by the individual" (Veenhoven, 1996). It represents a cognitive evaluation of one's life circumstances. Gratitude enhances life satisfaction through multiple mechanisms. These include amplifying positive experiences, facilitating coping with adversity, strengthening social relationships, reducing social comparisons, and countering adaptation to positive life circumstances (Watkins, 2004; Fredrickson, 2004).

Intervention studies have provided evidence for a causal relationship. Gratitude exercises such as journaling or letter writing consistently improve life satisfaction across diverse populations (Emmons & McCullough, 2003; Lambert et al., 2009). These effects appear particularly pronounced in older adults. Older adults may benefit from gratitude's capacity to foster meaning and purpose in later life (Killen & Macaskill, 2015). Mindfulness is broadly defined as the practice of maintaining awareness and attention to the present moment without judgment or reaction (Glomb et al., 2011). It involves observing experiences with full awareness, maintaining a nonjudgmental attitude, and responding calmly (Baer, 2006). People who are mindful recognize that all life events contain both positive and negative elements. They accept these experiences with openness and balance (Langer, 2002). Research has established mindfulness as a significant predictor of psychological well-being and life satisfaction (Brown & Ryan, 2003). Mindfulness contributes to well-being through enhanced emotional regulation, reduced stress reactivity, and improved cognitive flexibility (Hölzel et al., 2011). Among older adults, mindfulness interventions have demonstrated effectiveness in reducing symptoms of anxiety and depression. They also improve quality of life (Bohlmeijer et al., 2011). Mindfulness-based cognitive therapy (MBCT) has shown particular promise in enhancing life satisfaction among elderly populations (Bohlmeijer et al., 2011). Despite their distinct conceptual origins, gratitude and mindfulness share important commonalities. Both involve a positive, accepting, and nonjudgmental orientation toward experience (Glomb et al., 2011). To experience gratitude, individuals must be mindfully aware of what they perceive as good. They must also be capable of assigning genuine emotional meaning to positive experiences. Similarly, mindfulness practice often cultivates appreciation for present-moment experiences. This fosters gratitude as a natural byproduct (Ivtzan & Lomas, 2016).

Theoretical frameworks suggest that mindfulness may serve as a mechanism through which gratitude enhances well-being. Emotional awareness theory (Lambie, 2007) proposes that individuals must consciously recognize their emotional states to benefit from positive emotions. Mindfulness enhances present-moment awareness and emotional clarity. This may enable individuals to fully experience and capitalize on grateful feelings. Consequently, this amplifies their positive effects on life satisfaction (Chen et al., 2016). Gender differences in psychological constructs have important implications for intervention design and implementation. Research on gratitude has yielded mixed findings. Some studies indicate higher gratitude among females (Kashdan et al., 2009). Others report no significant gender differences (Wood et al., 2010). Similarly, findings on gender differences in mindfulness have been inconsistent. However, some research suggests females may report higher mindfulness levels. This may be due to socialization patterns encouraging emotional expression and introspection (Baer et al., 2006). Life satisfaction generally shows minimal gender differences in older adult populations (Sugiura & Sugiura, 2018). This suggests that subjective well-being remains relatively stable across genders in later life. Despite extensive research on gratitude and mindfulness individually, their combined influence on life satisfaction in older adults remains insufficiently studied. In particular, the mediating role of mindfulness in the gratitude-life satisfaction relationship requires further investigation (Hill et al., 2016). This study aims to address these gaps by examining the relationships between gratitude, mindfulness, and life satisfaction in a sample of older adults.

Research Questions

1. To measure the relationship between gratitude and life satisfaction in the older adult population.
2. To examine how gratitude relates to mindful awareness in senior citizen populations.
3. To explore how greater mindfulness levels in older adults produce positive effects on their life satisfaction.
4. To investigate if mindfulness acts as a mediator linking gratitude to life satisfaction in older adults.
5. To examine gender differences in gratitude, mindfulness, and life satisfaction among older adults.

Research Hypotheses

H1: There will be a significant positive relationship between gratitude and life satisfaction among older adults.
H2: There will be a significant positive relationship between gratitude and mindfulness among older adults.
H3: Higher levels of mindfulness will be positively associated with life satisfaction among older adults.
H4: Mindfulness will mediate the relationship between gratitude and life satisfaction among older adults.
H5: There will be significant gender differences in gratitude, mindfulness, and life satisfaction among older adults.

II. METHOD

Participants

A cross-sectional research design was employed for this study. Participants were selected through convenience sampling technique. The study included 297 older adults (M = 1.42, SD = .49) aged 60-80 years. The sample comprised 171 males (56.8%) and 126 females (41.9%). Psychology research typically recommends 5 to 20 participants per indicator (Lei & Wu, 2007).

Inclusion Criteria

- Cognitive ability to comprehend and respond to survey questions.
- Fluency in the language of the survey (English/Urdu).
- Residence: Living with family.
- Ability to provide informed consent.
- Willingness to participate in the study.

Exclusion Criteria

- Cognitive impairment (e.g., dementia, Alzheimer's disease).
- Serious mental health conditions (e.g., psychosis, severe depression).
- Physical limitations preventing participation.
- Current participation in another research study.
- History of traumatic brain injury or neurological disorders.

Measures

A structured questionnaire collected information on marital status, gender, age, family system, occupation, education, and residence. Developed by McCullough et al. (2002), this 6-item self-report measure assesses dispositional gratitude. It uses a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Scores range from 6 to 42. Higher scores indicate greater gratitude. Cronbach's alpha for GQ-6 was .87 (McCullough et al., 2001). In the present study, Cronbach's α was .70. Riverside Life Satisfaction Scale (RLSS). Developed by Daniel et al. (2019), this 6-item scale assesses global life satisfaction. It uses a 7-point Likert scale. Scores range from 6 to 42. Higher scores indicate greater life satisfaction. Cronbach's alpha for RLSS was .87 (Daniel et al., 2019). In the present study, Cronbach's α was .785. Five Facet Mindfulness Questionnaire-15 (FFMQ-15). The FFMQ-15 assesses mindfulness across five dimensions: observing, describing, acting with awareness, nonjudging, and nonreactivity (Baer et al., 2006). Items are rated on a 5-point Likert scale. Cronbach's alpha in the present study was .70.

Procedure

Participants were recruited through community settings in Faisalabad, Pakistan. After providing informed consent, participants completed the demographic form and questionnaires. Assistance was provided for participants with reading difficulties. Data collection occurred over a three-month period. The methodology was approved by the APA panel of progressive study at Riphah International University Faisalabad before the commencement of experiments. Participants provided informed consent. They properly understood the purpose, procedures, and risks involved in the study. They also understood their rights to withdraw at any point without penalization. Data was securely stored. Pseudonyms were used to protect participants' identities. Participation was entirely voluntary. There was no coercion or undue pressure.

III. RESULTS

Table I: Demographic Characteristics of Participants (N = 297)

Variable	Categories	n	%
Gender	Male	171	56.8
	Female	126	41.9
Qualification	Matric	178	59.1
	Intermediate	35	11.6
	Bachelors	31	10.3
	Master	41	13.6
	Others	0	0
Age	60-65	11	3.7
	65-70	96	31.9
	70-75	150	49.8
	75-80	40	13.3
Marital Status	Married	291	96.7
	Single	6	2.0
Social Economic Status	Lower class	7	2.3
	Middle class	290	96.3

The sample included 297 individuals, with the majority identifying as male (56.8%) and female (41.9%). In terms of educational background, most participants had completed their matriculation (59.1%), followed by a significant portion holding a bachelor's degree (13.6%) and a smaller percentage with a master's degree (10.3%). Fewer participants had an intermediate qualification (11.6%) or other types of qualifications (3.7%). Regarding age, the largest group of participants were in the 65-70 age range (49.8%), followed by those in the 60-65 age range (31.9%). Smaller proportions were in the 70-75 age group (13.3%) and the 75-80 age group (3.7%). In terms of marital status, most participants were married (96.7%), with a small percentage being single parents (2.0%). Socioeconomically, the majority identified as middle class (96.3%), while a very small proportion were classified as lower class (2.3%).

Table II: Psychometric Properties of Scales

Scales	*M*	*SD*	Range	Cronbach's α
Gratitude Questionnaire	24.11	5.57	2-36	.70
Five Facet mindfulness questionnaire	39.7825	6.47	22-50	.70
Riverside Life Satisfaction Scale	22.7452	7.43	5-77	.785

Table 2 displays psychometric properties for the scales used in present study. The Gratitude Questionnaire acceptable reliability (α = .70)**.** The Five Facet mindfulness questionnaire (α = .70), while Riverside Life Satisfaction Scale also showed good reliability (α = .785)**.**

Table III: Pearson Correlation Analysis

Variable	*M*	*SD*	1	2	3
1. Gratitude	24.11	5.47	--		
2. Five Facet Mindfulness	39.78	6.48	.01	--	
3. Riverside Life Satisfaction	22.75	7.43	.57**	.29**	--

***p*< .01

A Pearson correlation analysis evaluated the relations between gratitude with Riverside life satisfaction and five-facet mindfulness in this study. The study revealed that gratitude positively correlated with Riverside life satisfaction scores at r (297) = .579 and p < .01 thus showing gratitude leads to improved satisfaction with life. Results showed no meaningful relationship between gratitude levels and five-facet mindfulness scores with a correlation value of r (297) = .01 and p value above .05. Five-facet mindfulness showed a strong positive

connection with Riverside life satisfaction while calculating at r (297) = .295, p < .01; this relationship reveals that better mindfulness scores resulted in better life satisfaction.

Table IV: Regression Coefficients of Gratitude Riverside life satisfaction scale

Variables	*B*	*SE*	β	*p*
(Constant)	4.13	1.56	-	.009
Gratitude	0.77	.063	.57	<.001
R^2	.335			

Table 4 offerings the influence of gratitude on RFSS. The R2 value of .335 shows that gratitude clarified 33.5% of the variance in RFSS. The regression model was statistically significant F (1,295) =148.82, p<.001p < .001p<.001. The findings reveal that gratitude positively predicted RFSS (β=.57, p<.001 < .001), with a significant unstandardized coefficient (B=0.77, SE=0.063). The analysis indicates RFSS rises by 0.77 units when gratitude levels increase by one unit while keeping all other variables steady.

Table V: Mean Comparison of Gratitude and Life Satisfaction in Male and Female

	Males		Females				
Variables	*M*	*SD*	*M*	*SD*	*t*(295)	*p*	Cohen's *d*
Gratitude	24.59	5.59	23.63	5.16	1.71	.08	0.18
Life Satisfaction	22.83	7.01	22.62	7.99	0.24	.81	0.02
Manfulness	39.01	6.97	40.82	5.59	-2.39	.02	0.12

The results expose gender changes in Gratitude, Life Satisfaction, and Mindfulness. No important change was experiential cutting-edge. Gratitude scores amongst males (M = 24.59, SD = 5.59) and females (M = 23.63, SD = 5.16), t (295) = 1.50, p = .13, (Cohen's d = 0.18). The statistical analysis showed no significant difference in Life Satisfaction levels between males (M = 22.83, SD = 7.01) and females (M = 22.62, SD = 7.99), t (295) = 0.24, p = .81 with an effect size of Cohen's d = 0.02. In the survey of mindfulness, a significant difference appeared between males (M = 39.01, SD = 6.97) and females (M = 40.82, SD = 5.59), t (295) = -2.39, p = .02, with a minor-to-reasonable effect size (Cohen's d = 0.29). The study data demonstrates that Gratitude and Life Satisfaction rates are comparable between genders yet females show statistically significant higher Mindfulness levels than males.

IV.DISCUSSION

The significant positive correlation between gratitude and life satisfaction supports Hypothesis 1. This finding aligns with extensive previous research (Wood et al., 2010; Emmons & McCullough, 2003). The strong effect size (r = .579) suggests gratitude is a substantial psychological resource for older adults. This is consistent with findings that gratitude enhances well-being through multiple mechanisms. These include amplifying positive experiences, strengthening social relationships, and countering adaptation (Watkins, 2004; Fredrickson, 2004). The regression analysis revealed gratitude explained 33.5% of variance in life satisfaction. This is comparable to findings in previous studies (Wood et al., 2010). This substantial explanatory power highlights gratitude as a uniquely important predictor of well-being in later life. Older adults who regularly practice gratitude may be better equipped to maintain positive life evaluations. They may do this despite age-related challenges (Killen & Macaskill, 2015). These findings have practical implications for interventions targeting older adults' psychological well-being. They suggest gratitude-based practices could be particularly beneficial for this population (Emmons & McCullough, 2003). The significant positive correlation between mindfulness and life satisfaction supports Hypothesis 3. This is consistent with existing research demonstrating mindfulness as a protective factor for psychological well-being (Brown & Ryan, 2003; Bohlmeijer et al., 2011). The moderate effect size (r = .295) suggests mindfulness contributes meaningfully to life satisfaction. However, it does so less strongly than gratitude. This finding aligns with research showing mindfulness enhances emotional regulation, reduces stress reactivity, and improves present-moment awareness. All of these contribute to more positive life evaluations (Hölzel et al., 2011).

Among older adults, mindfulness may be particularly valuable for managing age-related challenges. These include health decline and social loss (Huang et al., 2015). The observed relationship underscores the importance of mindfulness-based interventions in promoting well-being in aging populations. Programs such as Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT) have shown effectiveness. They improve life satisfaction among older adults (Bohlmeijer et al., 2011; Lomas et al., 2017). Contrary to expectations, no significant correlation was found between gratitude and mindfulness. This rejects Hypothesis 2. This finding diverges from some previous research suggesting interconnections between these constructs (Glomb et al., 2011; Ivtzan & Lomas, 2016). However, it aligns with studies showing gratitude and mindfulness may operate through distinct mechanisms (Wood et al., 2008). While both involve positive, accepting orientations, gratitude focuses on appreciation for past and present experiences. Mindfulness emphasizes present-moment awareness without evaluation (Langer, 2002). Several explanations may account for the non-significant relationship. First, cultural factors may influence how gratitude and mindfulness are experienced. They may be expressed differently in Pakistani older adults compared to Western samples (Sommers & Kosmitzki, 1988). Second, the measures used may tap different aspects of these constructs. The GQ-6 assesses dispositional gratitude. The FFMQ-15 evaluates multiple mindfulness facets. The lack of correlation suggests these constructs may be more independent than previously assumed. This holds true at least in this population. The non-significant mediation effect indicates mindfulness does not mediate the gratitude-life satisfaction relationship. This rejects Hypothesis 4. This finding aligns with research showing mindfulness may not serve as a key pathway through which gratitude affects well-being (Ivtzan & Lomas, 2016; Wood et al., 2008). Several factors may explain this result. First, gratitude and mindfulness may influence life satisfaction through independent mechanisms.

Gratitude primarily enhances positive appraisal of life experiences. Mindfulness improves emotional regulation and present-moment awareness (Fredrickson, 2004; Brown & Ryan, 2003). In older adults, these pathways may operate in parallel rather than sequentially. Second, the lack of correlation between gratitude and mindfulness suggests mindfulness may be less relevant for translating gratitude into life satisfaction. This contradicts what theoretical models propose (Lambie, 2007). Third, cognitive-emotional patterns in older adults may reduce the mediating role of mindfulness (Mayer et al., 2020). Established gratitude patterns may become automatic. They may require less conscious awareness to exert their effects. Alternatively, older adults may have developed alternative strategies for transforming gratitude into well-being. These might include religious or spiritual practices (Krause, 2006). These findings emphasize the need for continued investigation. Researchers must examine the mechanisms linking gratitude to well-being in different populations. The partial support for Hypothesis 5 contributes to understanding gender-specific psychological patterns in older adulthood. Significant gender differences were found in mindfulness. However, no such differences were found in gratitude or life satisfaction. The higher mindfulness scores among females (Cohen's d = 0.17) align with research suggesting women may be more attuned to internal emotional states. They may also have greater self-awareness (Kong et al., 2015; Baer et al., 2006). This difference may reflect socialization patterns. These patterns encourage emotional expression and introspection in women compared to men (Kashdan et al., 2009). The absence of gender differences in gratitude and life satisfaction is consistent with most research on these constructs (Wood et al., 2010; Sugiura & Sugiura, 2018). This suggests that despite different socialization experiences, older men and women experience similar levels of appreciation and life satisfaction. However, the significant mindfulness difference warrants attention in intervention design. Women may respond differently to mindfulness-based programs than men (Kong et al., 2015).

Practical Implications

The findings have several practical implications for promoting well-being in older adults.The strong association between gratitude and life satisfaction supports gratitude-based interventions for older adults. Practices such as gratitude journaling, letter writing, or daily appreciation exercises can be integrated into community programs. They can also be integrated into healthcare settings (Emmons & McCullough, 2003). The independent contributions of gratitude and mindfulness suggest older adults may benefit from interventions targeting both constructs. Cultivating both appreciation and present-moment awareness could provide complementary pathways. This would enhance well-being (Ivtzan & Lomas, 2016). The gender difference in mindfulness suggests intervention developers should consider gender-specific approaches. Women may benefit more readily from mindfulness practices. Men might need alternative approaches, such as gratitude or other positive psychology interventions (Kong et al., 2015). Policymakers and community organizations should integrate gratitude and

mindfulness practices into age-friendly initiatives. This would enhance older adults' psychological well-being and life satisfaction (Ding, 2017). Healthcare providers should consider routine assessment of gratitude and mindfulness. They should also promote these practices as part of comprehensive geriatric care. This recognizes their roles in supporting mental health and quality of life (Killen & Macaskill, 2015).

Limitations

Several limitations should be acknowledged. The cross-sectional design precludes causal inferences. Longitudinal studies are needed to establish directionality. The convenience sampling and predominance of middle-class, married participants limits generalizability. Findings may not apply to diverse socioeconomic and cultural groups. Reliance on self-report measures may introduce social desirability bias. The sample was limited to Faisalabad, Pakistan. Findings may not generalize to other cultural contexts. The non-significant gratitude-mindfulness correlation may reflect measurement limitations. The FFMQ-15 assesses multiple facets of mindfulness. Specific facets may relate differently to gratitude.

Future research should address these limitations through:

Longitudinal Designs Employing longitudinal studies to establish causal pathways among gratitude, mindfulness, and life satisfaction in older adults. Diverse Samples**:** Including participants from varied socioeconomic, cultural, and geographical backgrounds to enhance generalizability. Mixed Methods: Combining quantitative measures with qualitative interviews to explore subjective experiences of gratitude and mindfulness Intervention Studies Conducting randomized controlled trials of gratitude and mindfulness interventions. This would determine comparative effectiveness and optimal delivery methods. Mechanism Investigation Further exploring pathways through which gratitude and mindfulness influence well-being. This includes potential mediators not examined in this study (e.g., social support, meaning in life). Gender-Focused Research Investigating factors underlying gender differences in mindfulness. Exploring gender-responsive intervention strategies are also needed. This study contributes to understanding the roles of gratitude and mindfulness in promoting life satisfaction among older adults. The findings demonstrate that both gratitude and mindfulness independently contribute to well-being. However, mindfulness does not serve as a mechanism through which gratitude enhances life satisfaction. These results highlight the importance of cultivating both gratitude and mindfulness as distinct pathways to well-being in later life. As populations age globally, identifying and promoting such psychological resources becomes increasingly crucial. This supports healthy aging and quality of life. Future research should continue exploring how positive psychological processes interact. This will promote well-being across diverse older adult populations. It will inform evidence-based interventions to enhance life satisfaction in later years.

V. CONCLUSION

This study examined the relationships between gratitude, mindfulness, and life satisfaction among older adults. Key findings included: significant positive associations between gratitude and life satisfaction. Significant positive associations between mindfulness and life satisfaction. No significant relationship between gratitude and mindfulness Gratitude as a strong predictor of life satisfaction (explaining 33.5% of variance). No mediation effect of mindfulness in the gratitude-life satisfaction relationship. Significant gender differences in mindfulness but not gratitude or life satisfaction. These findings contribute to theoretical understanding of psychological well-being in older adults. They demonstrate that gratitude and mindfulness operate through distinct pathways. Both enhance life satisfaction. The non-significant correlation and lack of mediation suggest these constructs may be more independent than previously assumed. This is particularly true in aging populations. This challenges theories proposing mindfulness as a key mechanism for gratitude effects (Lambie, 2007; Chen et al., 2016). It highlights the need for more nuanced models of positive psychological processes in later life.

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