




Predicting Women's Life Satisfaction Through Self-Esteem, Meaning in Life, Social Connectedness, and Cognitive Emotion Regulation: A Serial Mediation Model

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ABSTRACT

Objective: The present study aimed to examine the direct and indirect relationships between self-esteem and life satisfaction among women and to investigate whether meaning in life, social connectedness, and cognitive emotion regulation function as serial mediators in this relationship.

Methods and Materials: This cross-sectional correlational study was conducted among 701 adult women residing in Canada. Participants were recruited through online platforms, community organizations, and university-affiliated networks. Data were collected using the Rosenberg Self-Esteem Scale, Meaning in Life Questionnaire, Social Connectedness Scale-Revised, Cognitive Emotion Regulation Questionnaire, and Satisfaction with Life Scale. Descriptive statistics and Pearson correlation analyses were performed using SPSS version 29. Structural equation modeling (SEM) was conducted using AMOS version 29 to test the hypothesized serial mediation model. Model fit was evaluated using χ^2/df , Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Incremental Fit Index (IFI), Goodness-of-Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). Indirect effects were assessed using bias-corrected bootstrapping procedures with 5,000 resamples and 95% confidence intervals.

Findings: The structural model demonstrated excellent fit to the data ($\chi^2/df = 2.24$, CFI = .962, TLI = .956, IFI = .963, GFI = .941, RMSEA = .042, SRMR = .038). Self-esteem significantly predicted meaning in life ($\beta = .62$, $p < .001$), social connectedness ($\beta = .29$, $p < .001$), and life satisfaction ($\beta = .21$, $p < .001$). Meaning in life significantly predicted social connectedness ($\beta = .48$, $p < .001$), cognitive emotion regulation ($\beta = .37$, $p < .001$), and life satisfaction ($\beta = .39$, $p < .001$). Social connectedness significantly predicted cognitive emotion regulation ($\beta = .28$, $p < .001$) and life satisfaction ($\beta = .24$, $p < .001$), while cognitive emotion regulation positively predicted life satisfaction ($\beta = .18$, $p < .001$). Bootstrap analyses revealed significant indirect effects through all mediation pathways. The serial mediation

pathway from self-esteem to life satisfaction through meaning in life, social connectedness, and cognitive emotion regulation was statistically significant ($\beta = .03$, 95% CI [.01, .06]). The model explained 67% of the variance in life satisfaction.

Conclusion: The findings indicate that self-esteem contributes to women's life satisfaction both directly and indirectly through a sequence of existential, interpersonal, and emotional mechanisms. Meaning in life emerged as the strongest mediator, while social connectedness and cognitive emotion regulation further enhanced the pathway from self-esteem to life satisfaction. These results highlight the importance of integrated interventions targeting self-worth, life meaning, social relationships, and adaptive emotional regulation to promote women's psychological well-being and overall life satisfaction.

Keywords: *Life Satisfaction; Self-Esteem; Meaning in Life; Social Connectedness; Cognitive Emotion Regulation; Women; Subjective Well-Being*

1. Introduction

Life satisfaction is widely recognized as one of the central indicators of subjective well-being and psychological adjustment. It reflects individuals' cognitive evaluations of the quality of their lives according to self-selected criteria and constitutes a fundamental component of positive mental health. In contemporary psychological research, life satisfaction has attracted considerable attention because of its association with numerous beneficial outcomes, including better mental health, stronger interpersonal relationships, enhanced resilience, greater productivity, and improved physical well-being. For women, life satisfaction is particularly important because it is shaped by a complex interplay of personal, social, emotional, and contextual factors that influence their experiences across different life domains. Recent evidence suggests that women's life satisfaction is associated with psychological resources, social support systems, identity development, emotional functioning, and perceptions of meaning and purpose in life (Branquinho et al., 2023; Hossain et al., 2022; Milošević et al., 2025).

The growing emphasis on positive psychology has shifted scholarly attention from psychological distress toward understanding factors that promote flourishing and life satisfaction. Within this framework, self-esteem has emerged as one of the most consistent predictors of subjective well-being. Self-esteem refers to an individual's overall evaluation of self-worth and personal value and functions as a core psychological resource that influences emotional experiences, social relationships, motivation, and adaptive functioning. Individuals with high self-esteem tend to perceive themselves as competent, worthy, and capable of overcoming challenges, which contributes to more positive evaluations of life circumstances. Previous studies have

consistently demonstrated positive associations between self-esteem and life satisfaction across diverse populations and developmental stages (McCullough et al., 2021; Szczeńsiak et al., 2022; Thi et al., 2025). Furthermore, self-esteem has been identified as a critical psychological mechanism through which social support and environmental resources influence well-being outcomes (Lee et al., 2021; Thi et al., 2025).

Among women, self-esteem appears to play an especially important role because societal expectations, interpersonal relationships, body image concerns, occupational demands, and social comparisons frequently influence self-evaluations. Research has shown that higher self-esteem is associated with better emotional adjustment, stronger interpersonal relationships, increased resilience, and greater overall life satisfaction among women (Ma et al., 2023; Wagner et al., 2022). Conversely, lower self-esteem has been linked to diminished psychological well-being, poorer emotional functioning, and reduced satisfaction with life circumstances (Fernandes et al., 2025; Lee et al., 2021). Although the direct relationship between self-esteem and life satisfaction has been extensively documented, increasing evidence suggests that this association may operate through several intervening psychological and social mechanisms.

One such mechanism is meaning in life. Meaning in life refers to the perception that one's existence is coherent, purposeful, and significant. The experience of meaning provides individuals with a framework for understanding their experiences, pursuing valued goals, and maintaining psychological stability during adversity. Meaning in life has consistently been associated with positive psychological outcomes, including happiness, resilience, emotional well-being, and life satisfaction (Cojocarú et al., 2025; Yang et al., 2024). Individuals who perceive their lives as

meaningful tend to demonstrate greater optimism, stronger motivation, and more adaptive coping responses when facing challenges. The presence of meaning contributes to psychological coherence and fosters a sense of direction that enhances subjective evaluations of life quality (Cojocaru et al., 2025; Layous et al., 2022).

Theoretical perspectives suggest that self-esteem may facilitate the development of meaning in life. Individuals with positive self-regard are more likely to view themselves as capable of pursuing meaningful goals and contributing to valued social roles. Consequently, self-esteem may strengthen perceptions of purpose and significance, which in turn enhance life satisfaction. Empirical studies have demonstrated that meaning in life functions as a significant predictor of well-being and serves as a mediating mechanism connecting personal strengths with positive psychological outcomes (Yang et al., 2024; Zhao & Zhang, 2025). Furthermore, interventions aimed at strengthening personal identity, self-worth, and positive self-reflection have been found to increase both meaning in life and overall well-being (Hepper et al., 2024; Layous et al., 2022). Despite these findings, relatively few studies have examined meaning in life as a mediator between self-esteem and life satisfaction among adult women.

Another variable that has received increasing attention in well-being research is social connectedness. Social connectedness refers to the subjective sense of belonging, interpersonal closeness, and emotional attachment to others. Human beings possess a fundamental need for belonging, and the fulfillment of this need contributes substantially to psychological well-being. Socially connected individuals generally report higher levels of happiness, greater resilience, stronger emotional regulation capacities, and enhanced life satisfaction (Mahasneh, 2022; Mehrpour et al., 2024). Social connectedness provides emotional support, validation, companionship, and opportunities for meaningful interpersonal interactions, all of which contribute to positive psychological functioning.

Research has consistently shown that social connectedness serves as a robust predictor of life satisfaction across different cultural and demographic contexts. For example, studies have demonstrated that stronger interpersonal relationships and greater social engagement contribute significantly to subjective well-being and positive mental health outcomes (Mahasneh, 2022; Roper & Tobin, 2022; Weng, 2023). Social connectedness has also been associated with reduced loneliness, lower depressive symptoms, and greater psychological resilience (Mehrpour

et al., 2024; Tangmunkongvorakul et al., 2022). In addition, social connectedness may be influenced by self-esteem because individuals with higher self-esteem typically exhibit greater confidence in social interactions and stronger perceptions of social acceptance (Lee et al., 2021; Weng, 2023). Therefore, social connectedness may represent an important interpersonal pathway linking self-esteem to life satisfaction.

Recent technological and societal developments have further highlighted the importance of social connectedness in contemporary life. While digital communication platforms offer opportunities for maintaining relationships, excessive or maladaptive technology use may sometimes undermine psychological well-being and meaningful social interactions (Bottaro & Faraci, 2022; Joshi et al., 2023; Walsh et al., 2024). Studies examining social media use and online engagement suggest that the quality of social relationships rather than the quantity of digital interactions is most strongly associated with life satisfaction and emotional well-being (Joshi et al., 2023; Roper & Tobin, 2022). Consequently, understanding how social connectedness contributes to women's life satisfaction remains an important research priority.

Beyond self-esteem, meaning in life, and social connectedness, cognitive emotion regulation represents another critical determinant of well-being. Cognitive emotion regulation refers to the conscious cognitive strategies individuals employ to manage emotionally significant experiences. These strategies include positive reappraisal, acceptance, planning, perspective taking, and other adaptive approaches that facilitate emotional adjustment. Effective cognitive emotion regulation promotes resilience, psychological flexibility, and emotional stability, whereas maladaptive strategies contribute to psychological distress and dissatisfaction with life (Abrinková et al., 2024; Wagner et al., 2022). Women who effectively regulate emotions tend to report greater well-being, stronger interpersonal relationships, and more positive evaluations of life circumstances.

The relationship between cognitive emotion regulation and life satisfaction has been documented in multiple populations. Adaptive cognitive strategies help individuals reinterpret stressful experiences, maintain positive emotional states, and sustain psychological well-being over time (Abrinková et al., 2024; Wagner et al., 2022). Furthermore, cognitive emotion regulation may be strengthened by social and personal resources. Individuals who experience greater meaning in life and stronger social

connections may possess enhanced capacities to regulate emotions effectively because they have access to psychological frameworks and supportive interpersonal environments that facilitate adaptive coping (Eather et al., 2023; Slone & Peer, 2021). These findings suggest that cognitive emotion regulation may represent a final pathway through which self-esteem, meaning in life, and social connectedness contribute to life satisfaction.

Several contemporary theoretical perspectives support the possibility of sequential relationships among these constructs. Self-esteem may contribute to stronger perceptions of meaning in life because individuals who value themselves are more likely to perceive purpose and significance in their experiences. Meaning in life may subsequently foster social connectedness because purposeful individuals often engage more actively in social relationships and community participation. Stronger social connectedness may then facilitate adaptive cognitive emotion regulation through emotional support, interpersonal validation, and opportunities for social learning. Ultimately, effective cognitive emotion regulation may contribute directly to greater life satisfaction by promoting emotional balance and positive evaluations of life experiences (Eather et al., 2023; Jones, 2022; Yang et al., 2024).

Emerging research across diverse contexts provides indirect support for this sequential framework. Studies have shown that social support and connectedness influence well-being partly through self-esteem and other psychological resources (Mahasneh, 2022; Thi et al., 2025). Research examining subjective well-being has demonstrated that interpersonal relationships, identity development, and emotional functioning are closely interconnected determinants of life satisfaction (Hung & Chan, 2022; Ma et al., 2023). Investigations of environmental connectedness, authenticity, and mental health further indicate that meaningful engagement with valued aspects of life contributes to both emotional functioning and subjective well-being (Jones, 2022; Yang et al., 2024; Zhao & Zhang, 2025). Additional studies have highlighted the importance of supportive relationships, social participation, and community involvement in promoting psychological adjustment and life satisfaction (Dodd et al., 2021; Eather et al., 2023; Puțaru & Rusu, 2023).

Although previous studies have separately examined the relationships among self-esteem, meaning in life, social connectedness, cognitive coping, and life satisfaction, relatively little research has integrated these variables within a single serial mediation framework focused specifically on

women. Existing evidence suggests that these factors are interconnected; however, the precise mechanisms through which self-esteem influences life satisfaction remain insufficiently understood. Moreover, many prior investigations have focused on direct effects while neglecting the complex psychological and interpersonal processes that may explain why individuals with higher self-esteem experience greater satisfaction with life. Given the increasing recognition of women's psychological well-being as a public health priority and the growing interest in strengths-based models of mental health, examining these pathways may contribute valuable theoretical and practical insights (Yang et al., 2023; Zhang & Wang, 2025).

Therefore, the present study aimed to examine whether meaning in life, social connectedness, and cognitive emotion regulation serially mediate the relationship between self-esteem and life satisfaction among women.

2. Methods and Materials

2.1. Study design and Participant

This study employed a cross-sectional correlational design using structural equation modeling (SEM) to investigate the direct and indirect relationships among self-esteem, meaning in life, social connectedness, cognitive emotion regulation, and life satisfaction among women. The primary objective was to examine whether meaning in life, social connectedness, and cognitive emotion regulation functioned as serial mediators in the relationship between self-esteem and life satisfaction. The study was conducted in Canada between January and April 2026. The target population consisted of adult women residing in different provinces of Canada, including Ontario, British Columbia, Alberta, Quebec, and Nova Scotia. Participants were recruited through online community groups, women's organizations, social media platforms, and university-affiliated participant recruitment systems. A total of 742 women initially agreed to participate in the study. After screening for incomplete responses, response inconsistencies, and multivariate outliers, 701 questionnaires were retained for the final analyses. Eligibility criteria included being female, at least 18 years of age, residing in Canada, and possessing sufficient English language proficiency to complete the study instruments. Participants ranged in age from 18 to 67 years, with a mean age of 36.84 years ($SD = 11.27$). Before participation, all respondents provided informed consent electronically. Participation was voluntary, anonymous, and confidential,

and respondents were informed that they could withdraw from the study at any point without penalty.

2.2. Measures

Data were collected using a battery of standardized psychological instruments with well-established psychometric properties. Life satisfaction was assessed using the Satisfaction with Life Scale (SWLS) developed by Diener, Emmons, Larsen, and Griffin (1985). The SWLS consists of five items designed to measure global cognitive judgments of life satisfaction. Responses are recorded on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Higher scores indicate greater levels of life satisfaction. The scale has demonstrated excellent reliability and validity across diverse populations, including women from different cultural backgrounds.

Self-esteem was measured using the Rosenberg Self-Esteem Scale (RSES), developed by Rosenberg (1965). The instrument contains ten items assessing global self-worth and self-acceptance. Participants respond using a four-point Likert scale ranging from strongly disagree to strongly agree. Five items are reverse scored, and higher total scores indicate greater self-esteem. The RSES is one of the most widely used measures of self-esteem and has consistently demonstrated strong reliability, construct validity, and cross-cultural applicability in psychological research.

Meaning in life was assessed using the Meaning in Life Questionnaire (MLQ) developed by Steger, Frazier, Oishi, and Kaler (2006). The MLQ consists of ten items organized into two dimensions: Presence of Meaning and Search for Meaning. Responses are provided on a seven-point Likert scale ranging from absolutely untrue to absolutely true. Higher scores indicate stronger perceptions of meaning and purpose in life. The MLQ has shown satisfactory internal consistency, convergent validity, and discriminant validity in both community and clinical populations.

Social connectedness was measured using the Social Connectedness Scale–Revised (SCS-R) developed by Lee, Draper, and Lee (2001). This instrument contains twenty items that assess individuals' subjective sense of interpersonal closeness, belongingness, and emotional connection with others. Items are rated on a six-point Likert scale ranging from strongly disagree to strongly agree. Several items are reverse scored before calculating the total score. Higher scores indicate greater social connectedness and stronger feelings of interpersonal integration. Previous

studies have reported excellent reliability and validity for the SCS-R across different demographic groups.

Cognitive emotion regulation was assessed using the Cognitive Emotion Regulation Questionnaire (CERQ) developed by Garnefski, Kraaij, and Spinhoven (2001). The questionnaire consists of 36 items distributed across nine cognitive coping strategies, including self-blame, acceptance, rumination, positive refocusing, refocus on planning, positive reappraisal, putting into perspective, catastrophizing, and blaming others. Responses are rated on a five-point Likert scale ranging from almost never to almost always. Higher scores on adaptive strategies reflect more constructive cognitive emotion regulation processes, whereas higher scores on maladaptive strategies indicate less effective emotional coping. The CERQ has demonstrated strong psychometric characteristics in numerous international studies and has been extensively used in research examining emotional adjustment and psychological well-being.

2.3. Data Analysis

Data analysis was conducted using IBM SPSS Statistics version 29 and AMOS version 29. Initially, descriptive statistics, including means, standard deviations, skewness, and kurtosis values, were calculated for all variables. Pearson correlation coefficients were computed to examine bivariate associations among study constructs. Assumptions of normality, multicollinearity, and absence of influential outliers were assessed before model testing. Confirmatory factor analyses were performed to evaluate the measurement properties of the latent constructs. Structural equation modeling was subsequently employed to test the hypothesized serial mediation model. Direct, indirect, and total effects were estimated simultaneously using maximum likelihood estimation. The significance of indirect effects was examined using bias-corrected bootstrap procedures with 5,000 resamples and 95% confidence intervals. Model fit was evaluated using multiple goodness-of-fit indices, including the chi-square statistic divided by degrees of freedom (χ^2/df), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Goodness-of-Fit Index (GFI), Incremental Fit Index (IFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). Values of CFI, TLI, GFI, and IFI greater than 0.90 and RMSEA and SRMR values below 0.08 were considered indicative of acceptable model fit. Through these procedures, the proposed serial mediation pathways linking

self-esteem to life satisfaction through meaning in life, social connectedness, and cognitive emotion regulation were comprehensively evaluated.

3. Findings and Results

A total of 701 women participated in the study and were included in the final analyses. Participants ranged in age from 18 to 67 years ($M = 36.84$, $SD = 11.27$). Regarding educational attainment, 17.4% had completed high school or equivalent education, 24.8% held a college diploma, 41.7% possessed a bachelor's degree, and 16.1% had completed postgraduate studies. In terms of marital status, 48.9% were

married, 38.7% were single, 7.6% were divorced, and 4.8% were widowed. Employment status indicated that 54.2% were employed full-time, 16.8% were employed part-time, 18.4% were students, and 10.6% were unemployed or retired. The sample represented multiple Canadian provinces, with the largest proportions residing in Ontario (39.5%), British Columbia (21.1%), Alberta (17.3%), Quebec (12.4%), and other provinces (9.7%). Preliminary screening revealed no substantial violations of normality assumptions. Skewness values ranged from -0.91 to 0.76 , while kurtosis values ranged from -0.84 to 0.89 , indicating acceptable distributional properties for structural equation modeling.

Table 1

Descriptive Statistics and Correlations Among Study Variables

Variable	Mean	SD	1	2	3	4	5
1. Self-Esteem	31.42	5.78	1.00				
2. Meaning in Life	47.35	8.64	.61**	1.00			
3. Social Connectedness	82.17	13.25	.58**	.66**	1.00		
4. Cognitive Emotion Regulation	115.48	16.92	.49**	.57**	.53**	1.00	
5. Life Satisfaction	24.86	6.47	.65**	.69**	.63**	.55**	1.00

The descriptive findings demonstrated that participants reported moderate to relatively high levels of self-esteem, meaning in life, social connectedness, adaptive cognitive emotion regulation, and life satisfaction. Pearson correlation analyses revealed statistically significant positive relationships among all study variables. Self-esteem exhibited a strong positive correlation with life satisfaction ($r = .65$, $p < .001$), suggesting that women with higher levels of self-worth tended to report greater satisfaction with their lives. Meaning in life showed the strongest association with life satisfaction ($r = .69$, $p < .001$), highlighting the

importance of perceived purpose and meaning for psychological well-being. Social connectedness was also strongly correlated with life satisfaction ($r = .63$, $p < .001$), indicating that feelings of belongingness and interpersonal integration were associated with greater life satisfaction. Cognitive emotion regulation demonstrated moderate-to-strong positive relationships with all variables, particularly meaning in life ($r = .57$, $p < .001$) and life satisfaction ($r = .55$, $p < .001$). These findings provided initial support for the proposed mediation model and justified proceeding with structural equation analyses.

Table 2

Measurement Model Fit Indices

Fit Index	Obtained Value	Recommended Value
χ^2	412.76	—
df	184	—
χ^2/df	2.24	< 3.00
CFI	.962	$> .90$
TLI	.956	$> .90$
IFI	.963	$> .90$
GFI	.941	$> .90$
RMSEA	.042	$< .08$
SRMR	.038	$< .08$

The confirmatory factor analysis indicated that the measurement model demonstrated an excellent fit to the

observed data. The ratio of chi-square to degrees of freedom ($\chi^2/df = 2.24$) was below the recommended threshold of 3.00.

Incremental fit indices, including the Comparative Fit Index (CFI = .962), Tucker-Lewis Index (TLI = .956), and Incremental Fit Index (IFI = .963), exceeded the recommended criterion of .90. Furthermore, the Goodness-of-Fit Index (GFI = .941) suggested satisfactory overall model fit. Error-based indices also indicated strong model performance, with RMSEA (.042) and SRMR (.038)

substantially below conventional cut-off values. Collectively, these results confirmed the adequacy of the latent variable structure and supported the use of the measurement model for testing the structural relationships among self-esteem, meaning in life, social connectedness, cognitive emotion regulation, and life satisfaction.

Table 3

Direct Effects in the Structural Model

Path	β	SE	CR	p
Self-Esteem → Meaning in Life	.62	.04	14.81	< .001
Self-Esteem → Social Connectedness	.29	.05	5.97	< .001
Meaning in Life → Social Connectedness	.48	.04	11.62	< .001
Meaning in Life → Cognitive Emotion Regulation	.37	.05	8.21	< .001
Social Connectedness → Cognitive Emotion Regulation	.28	.04	6.74	< .001
Cognitive Emotion Regulation → Life Satisfaction	.18	.04	4.49	< .001
Social Connectedness → Life Satisfaction	.24	.05	5.13	< .001
Meaning in Life → Life Satisfaction	.39	.05	8.56	< .001
Self-Esteem → Life Satisfaction	.21	.05	4.77	< .001

The structural model revealed significant direct effects among all hypothesized pathways. Self-esteem strongly predicted meaning in life ($\beta = .62, p < .001$), indicating that women with greater self-worth were more likely to experience a stronger sense of purpose and meaning. Meaning in life significantly predicted both social connectedness ($\beta = .48, p < .001$) and cognitive emotion regulation ($\beta = .37, p < .001$), suggesting that purposeful living facilitates both interpersonal engagement and adaptive emotional coping strategies. Social connectedness

also contributed significantly to cognitive emotion regulation ($\beta = .28, p < .001$), reflecting the beneficial role of supportive social relationships in emotional management. Regarding life satisfaction, meaning in life emerged as the strongest direct predictor ($\beta = .39, p < .001$), followed by social connectedness ($\beta = .24, p < .001$), self-esteem ($\beta = .21, p < .001$), and cognitive emotion regulation ($\beta = .18, p < .001$). These findings indicate that psychological, existential, and interpersonal factors collectively contribute to women's life satisfaction.

Table 4

Bootstrap Analysis of Indirect and Serial Mediation Effects

Indirect Path	Standardized Effect	Boot LLCI	Boot ULCI	Result
Self-Esteem → Meaning in Life → Life Satisfaction	.24	.18	.31	Significant
Self-Esteem → Social Connectedness → Life Satisfaction	.07	.03	.12	Significant
Self-Esteem → Meaning in Life → Social Connectedness → Life Satisfaction	.07	.04	.11	Significant
Self-Esteem → Meaning in Life → Cognitive Emotion Regulation → Life Satisfaction	.04	.02	.08	Significant
Self-Esteem → Social Connectedness → Cognitive Emotion Regulation → Life Satisfaction	.01	.004	.03	Significant
Self-Esteem → Meaning in Life → Social Connectedness → Cognitive Emotion Regulation → Life Satisfaction	.03	.01	.06	Significant

Bootstrap analyses based on 5,000 resamples demonstrated that all indirect effects were statistically significant because none of the confidence intervals included zero. The strongest mediation pathway occurred through meaning in life alone ($\beta = .24$), indicating that a substantial portion of the influence of self-esteem on life satisfaction operated through enhanced perceptions of life meaning and

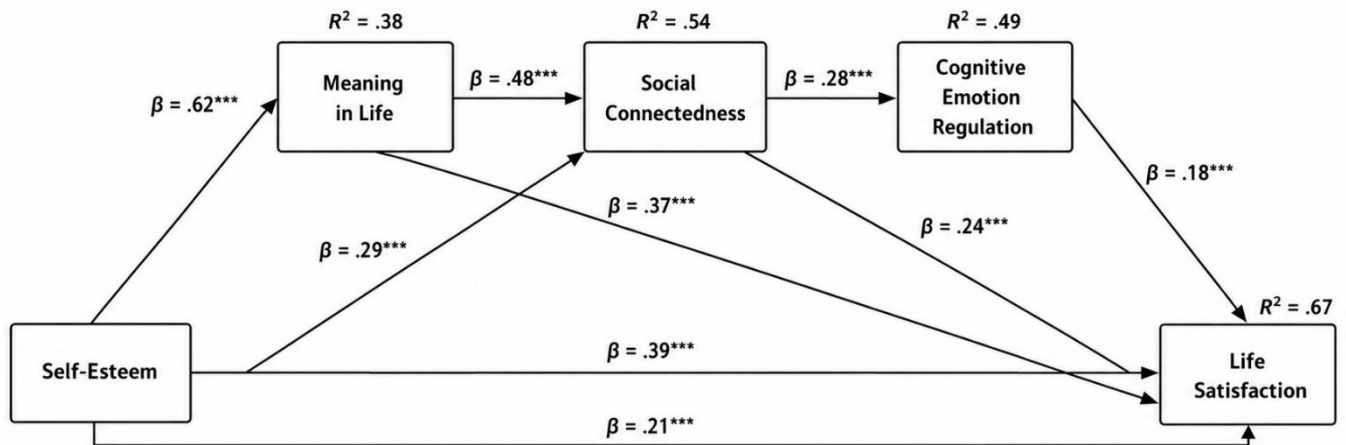
purpose. Additional mediation effects emerged through social connectedness and cognitive emotion regulation. Importantly, the hypothesized serial mediation pathway linking self-esteem to meaning in life, then to social connectedness, subsequently to cognitive emotion regulation, and finally to life satisfaction was statistically significant ($\beta = .03, 95\% \text{ CI } [.01, .06]$). This finding supports

the proposition that self-esteem promotes life satisfaction through a sequential process involving existential fulfillment, stronger social bonds, and more adaptive emotional regulation strategies. The persistence of a

significant direct effect of self-esteem on life satisfaction alongside significant indirect effects suggests partial rather than full mediation.

Figure 1

Final Structural Equation Model of the Serial Mediation Relationships Among Self-Esteem, Meaning in Life, Social Connectedness, Cognitive Emotion Regulation, and Life Satisfaction



The final structural model demonstrated excellent overall fit to the data and accounted for a substantial proportion of variance in the endogenous variables. Specifically, the model explained 38% of the variance in meaning in life, 54% of the variance in social connectedness, 49% of the variance in cognitive emotion regulation, and 67% of the variance in life satisfaction. Examination of standardized path coefficients indicated that meaning in life served as the central psychological mechanism linking self-esteem to subsequent psychosocial resources and well-being outcomes. Social connectedness and cognitive emotion regulation further strengthened these relationships by providing interpersonal and emotional pathways through which self-esteem translated into enhanced life satisfaction. The magnitude of the explained variance in life satisfaction demonstrates that the integrated model offers substantial explanatory power and highlights the importance of considering self-related, existential, social, and emotional processes simultaneously when investigating determinants of women's life satisfaction. Overall, the findings strongly supported the proposed serial mediation model and underscored the interconnected nature of psychological resources contributing to subjective well-being among women.

4. Discussion

The present study examined a serial mediation model linking self-esteem to life satisfaction through meaning in life, social connectedness, and cognitive emotion regulation among women. The findings demonstrated that self-esteem was positively associated with life satisfaction both directly and indirectly through the proposed mediators. The structural model showed excellent fit to the data and explained a substantial proportion of variance in life satisfaction. Specifically, self-esteem significantly predicted meaning in life, social connectedness, and life satisfaction, while meaning in life positively predicted social connectedness, cognitive emotion regulation, and life satisfaction. Social connectedness was also positively associated with cognitive emotion regulation and life satisfaction. Furthermore, all indirect pathways were significant, including the hypothesized serial mediation pathway from self-esteem to life satisfaction through meaning in life, social connectedness, and cognitive emotion regulation. These findings suggest that women's life satisfaction is influenced not only by how positively they evaluate themselves but also by how meaningful they perceive their lives to be, how connected they feel to others,

and how effectively they regulate their emotional experiences.

One of the most important findings of the present study was the significant direct relationship between self-esteem and life satisfaction. This finding is consistent with a large body of research demonstrating that self-esteem constitutes a central psychological resource that contributes to subjective well-being and positive life evaluations. Individuals with higher self-esteem tend to possess more favorable self-perceptions, greater confidence in their abilities, and stronger beliefs regarding their capacity to overcome challenges. Consequently, they are more likely to interpret life experiences positively and report higher levels of satisfaction. The present finding aligns with previous studies indicating that self-esteem is one of the strongest predictors of life satisfaction and psychological well-being across different populations (McCullough et al., 2021; Szczeńiak et al., 2022; Weng, 2023). Similarly, research examining mental health and psychosocial adjustment has consistently shown that self-esteem functions as a protective factor against emotional distress while promoting positive psychological outcomes (Lee et al., 2021; Thi et al., 2025). For women, self-esteem may be particularly important because it influences how they interpret interpersonal experiences, evaluate personal achievements, and respond to societal expectations.

The findings also revealed a strong positive association between self-esteem and meaning in life. Women with higher self-esteem reported greater perceptions of purpose, significance, and meaning in their lives. This result supports theoretical perspectives suggesting that positive self-regard enables individuals to develop coherent life narratives and pursue personally meaningful goals. Individuals who view themselves as valuable and competent are more likely to engage in activities that reinforce purpose and personal significance. The present findings correspond with previous evidence showing that meaning in life is closely associated with positive self-evaluations and psychological adjustment (Cojocaru et al., 2025; Yang et al., 2024). Studies investigating authenticity, identity development, and psychological flourishing have similarly demonstrated that individuals with stronger internal resources tend to experience greater meaning and life purpose (Hepper et al., 2024; Yang et al., 2024). The strong relationship observed in the current study suggests that self-esteem may serve as an important foundation upon which perceptions of meaning are constructed.

Another notable finding was that meaning in life emerged as the strongest direct predictor of life satisfaction within the model. This result emphasizes the central role of existential well-being in shaping women's evaluations of their lives. Meaning in life provides individuals with a sense of coherence and direction that enables them to interpret experiences positively, maintain hope during adversity, and derive fulfillment from daily activities. The current finding is highly consistent with previous research demonstrating that meaning in life is strongly associated with happiness, subjective well-being, and life satisfaction (Cojocaru et al., 2025; Layous et al., 2022). Research has suggested that individuals who perceive their lives as meaningful are more resilient when confronting stress and are better able to maintain positive emotional states over time (Yang et al., 2024; Zhao & Zhang, 2025). The present results extend these findings by demonstrating that meaning in life not only directly contributes to life satisfaction but also facilitates other psychosocial resources that further enhance well-being.

The positive relationship between meaning in life and social connectedness observed in the present study is also theoretically meaningful. Women who experience a stronger sense of purpose may be more likely to invest in interpersonal relationships, participate in social activities, and seek meaningful interactions with others. Purposeful living often involves engagement with communities, families, and social networks, thereby strengthening feelings of belongingness and connectedness. This finding is consistent with previous studies emphasizing the social dimensions of meaningful living and psychological well-being (Eather et al., 2023; Mehrpour et al., 2024). Individuals who possess a clear sense of meaning often demonstrate greater social engagement and stronger relational functioning, which subsequently contribute to higher levels of well-being.

The findings further indicated that social connectedness significantly predicted life satisfaction. This result reinforces the growing body of literature emphasizing the importance of belongingness and interpersonal relationships for psychological well-being. Human beings possess an inherent need for social connection, and the fulfillment of this need contributes to emotional security, psychological support, and positive self-evaluation. The current findings are consistent with studies showing that social connectedness, social support, and relationship quality are strongly associated with life satisfaction and subjective well-being (Mahasneh, 2022; Mehrpour et al., 2024; Weng, 2023).

Research conducted across different age groups and cultural contexts has repeatedly demonstrated that individuals who feel connected to others report greater happiness, lower loneliness, and higher life satisfaction (Roper & Tobin, 2022; Tangmunkongvorakul et al., 2022). In the context of women's well-being, social connectedness may provide emotional validation, practical support, and opportunities for meaningful social engagement, all of which contribute to positive evaluations of life.

The significant relationship between social connectedness and cognitive emotion regulation provides additional insight into the psychological processes underlying life satisfaction. Women who experience stronger social connections may have greater access to emotional support, interpersonal feedback, and opportunities to learn adaptive coping strategies. Supportive relationships often facilitate emotional expression and help individuals reinterpret stressful experiences more constructively. These findings are consistent with resilience and social support theories suggesting that interpersonal resources enhance emotional adjustment and coping capacities (Mahasneh, 2022; Slone & Peer, 2021). The results also align with evidence indicating that connectedness promotes psychological resilience and adaptive emotional functioning through increased perceptions of security and support (Mehrpour et al., 2024; Tangmunkongvorakul et al., 2022).

The present study additionally found that cognitive emotion regulation significantly predicted life satisfaction. This result is consistent with extensive research demonstrating that adaptive cognitive strategies play a critical role in maintaining psychological well-being. Individuals who effectively regulate their emotions are better able to manage stress, reinterpret negative experiences, and maintain positive emotional states. Such abilities contribute directly to more favorable evaluations of life circumstances. Previous studies have similarly shown that adaptive coping strategies and emotional regulation capacities are associated with greater quality of life, resilience, and subjective well-being (Abrinková et al., 2024; Wagner et al., 2022). Women who employ adaptive cognitive strategies such as positive reappraisal, acceptance, and planning may be more capable of managing emotional challenges and preserving life satisfaction despite adverse circumstances.

Perhaps the most theoretically important finding of the study was the confirmation of the serial mediation model. The results demonstrated that self-esteem influenced life satisfaction through a sequential pathway involving meaning

in life, social connectedness, and cognitive emotion regulation. This finding suggests that psychological well-being develops through interconnected personal, social, and emotional processes rather than through isolated factors. Women with higher self-esteem appear more likely to perceive their lives as meaningful, which subsequently strengthens social connectedness. Enhanced connectedness then facilitates adaptive cognitive emotion regulation, ultimately leading to greater life satisfaction. This sequential process is consistent with contemporary ecological and positive psychological models that conceptualize well-being as the product of multiple interacting resources and strengths (Branquinho et al., 2023; Yang et al., 2024; Zhao & Zhang, 2025). The findings also support research indicating that personal strengths often influence well-being indirectly through social and emotional mechanisms (Lee et al., 2021; Thi et al., 2025).

5. Conclusion

The current findings should also be interpreted in light of broader societal changes affecting women's well-being. Contemporary women often navigate multiple roles and responsibilities across family, occupational, educational, and social domains. These demands can create challenges that require substantial psychological and emotional resources. Research examining social media use, digital engagement, identity formation, and interpersonal functioning has highlighted the increasing importance of self-esteem, social connectedness, and emotional regulation in maintaining well-being within modern environments (Bottaro & Faraci, 2022; Joshi et al., 2023; Walsh et al., 2024). The present findings suggest that interventions aimed at enhancing life satisfaction among women may be most effective when they simultaneously target self-esteem, meaning in life, social relationships, and emotional regulation capacities.

6. Limitations and Suggestions

Several limitations should be considered when interpreting the findings of this study. First, the cross-sectional design prevents definitive conclusions regarding causality among the variables. Although the proposed model was theoretically supported, longitudinal or experimental designs are necessary to establish temporal ordering and causal relationships. Second, all variables were assessed using self-report measures, which may be influenced by response biases such as social desirability and common

method variance. Third, the sample consisted exclusively of women residing in Canada, which may limit the generalizability of the findings to men or women from different cultural contexts. Finally, although the model explained a substantial proportion of variance in life satisfaction, additional factors such as personality traits, socioeconomic status, physical health, and cultural values may also contribute to life satisfaction and were not examined in the present study.

Future studies should employ longitudinal designs to examine how self-esteem, meaning in life, social connectedness, and cognitive emotion regulation interact over time to influence life satisfaction. Researchers may also investigate alternative mediation and moderation models that include variables such as resilience, optimism, gratitude, psychological flexibility, mindfulness, and social support. Cross-cultural studies would be valuable for determining whether the observed relationships are consistent across diverse cultural settings. Future research may additionally explore age-related differences in the proposed model and compare the pathways among adolescent, young adult, middle-aged, and older women. Experimental intervention studies designed to enhance self-esteem, meaning in life, and emotional regulation could further clarify the causal mechanisms underlying life satisfaction.

The findings suggest that programs designed to improve women's life satisfaction should adopt a multidimensional approach. Mental health professionals may benefit from incorporating self-esteem enhancement strategies alongside interventions that help women identify personal values, meaningful goals, and sources of purpose. Community-based initiatives that strengthen social relationships and foster a sense of belonging may also contribute substantially to well-being. Furthermore, psychological training programs that develop adaptive cognitive emotion regulation skills could help women manage stress more effectively and maintain positive life evaluations. Educational institutions, workplaces, and healthcare organizations can promote life satisfaction by creating supportive environments that nurture personal growth, social connection, and emotional resilience. Such integrated approaches may provide sustainable pathways toward enhancing women's overall psychological well-being and quality of life.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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