



**RESEARCH PAPER**

**Physical Exercise as Medicine to Enhance life Satisfaction among Older Adult Women residing in Urban Area**

<sup>1</sup>Sania Sarfraz <sup>2</sup>Dr. Asif Ali\* <sup>3</sup>Mian Zain ud Din

1. MSc Physical Education & Sports Sciences at Government College University, Lahore, Punjab, Pakistan.
2. Associate Professor, Department of Physical Education & Sports Sciences, Government College University, Lahore, Punjab, Pakistan.
3. BS Physical Education & Sports Sciences at Government College University, Lahore, Punjab, Pakistan

**\*Corresponding Author:** asif.ali@gcu.edu.pk

**ABSTRACT**

Higher level of life satisfaction has related with many positive psychological and physical health related outcomes among older women. The current study looks on how physical exercise and life pleasure are linked in women over the age of 60 years. Data was obtained from 400 older women using a demographic questionnaire, life satisfaction scale and the international physical activity questionnaire (IPAQ). The findings from simple linear regression analysis revealed that score of IPAQ significantly predicted satisfaction with life. These results suggested that more women older adults engaged in physical activity, the more satisfied they were with their life. Finally, the study shed light on the connection between physical exercise and life fulfilment. Participants who engaged in more physical exercise give an account of excessive levels of life contentment. However, further study with great with greater samples are required to improve the observable of these findings.

**KEYWORDS** Life Satisfaction, Older Adult, Physical Activity, Women

**Introduction**

Physical exercise and life satisfaction are two key factors impacting older individuals' well-being and quality of life. Life satisfaction as an individual's entire opinion of their life, which includes physical health, emotional well-being, and social interactions (Diener, 1984). Contrarily, any physical activity muscular action made skeletal muscles, which necessitates the paying out of energy, such as exercise, sports, or daily tasks (An, Chen, Wang, Yang, Huang, & Fan, 2020). The connection between exercise and pleasure in life has piqued the curiosity of researchers and healthcare practitioners alike, who want to know how physical exercise affects the whole life satisfaction of women in their later years.

Physical exercise has been identified as a key indicator of elderly people's life happiness. According to research, regular physical exercise is connected with improved degrees of happiness with life (Duda et al., 2014). Exercise increases self-confidence and fosters a sense of success, and improves cognitive function, all of which lead to a higher level of life satisfaction (Fanning et al., 2018). Furthermore, physical activity has been shown to be a therapeutic technique of increasing life satisfaction, especially as a preventative tool against diminishing well-being (McAuley et al., 2000). Exercise has been demonstrated to produce endorphins, the body's natural mood lifters, leading to increased emotional resilience and life satisfaction (Dinas, Koutedakis, & Flouris, 2011).

Aside from its favorable impacts, inadequate physical working out has a negative impact on the contentment with life among older women. Sedentary behavior and a lack of regular exercise have been associated to lower physical functioning and an overall lower quality of life (Sanders et al., 2019). Lower life satisfaction is frequently connected with feelings of isolation and less social interaction among older persons who lead sedentary

lifestyles (Makizako et al., 2021). Understanding these repercussions emphasizes the need of encouraging physical exercise in order to upgrade the fulfilment of elderly ladies in life.

Despite the acknowledged advantages of physical exercise on life happiness studies on the prevalence of physical exercise and happiness in life among women in the older adult population is needed. According to research, a significant proportion of older women do not fulfil the recommended levels of physical exercise (Jaclyn P. Maher & Conroy, 2015). Furthermore, life satisfaction varies among demographic groups, with financial position and cultural background impacting the relationship between exercise and life happiness (M. J. Aartsen, Smits, C. H., Van Tilburg, T., Knipscheer, K. C., Deeg, 2002).

The present research on the correlation between bodily pursuit and life gratification in women over the age of 60 may make substantial advances, yet major study gaps remained.

### **Literature Review**

Previous studies had shown a significant relationship between physical exercise and satisfaction of life which are presented below.

Sanders et al. (2019) explored the long-term correlation between life happiness and physical activity in older persons. The consequence showed a substantial beneficial association involving the two parameters, demonstrating found over time, greater levels of physical exercise were linked to greater levels of life satisfaction. This study offered preliminary evidence that physical exercise is important in determining life satisfaction in older women.

According to Masi, Chen, Hawkey, Cacioppo, and review (2011) did another meta-analysis on the cumulative impact of exercise on elderly women's life satisfaction. The analysis of several research revealed that physical activity had a constant and significant beneficial influence regard for one's quality of life, underlining the potential importance of exercise as a predictor of well-being in this group.

The study of Bourque, Pushkar, Bonneville, and Béland (2005) investigated the association between older women's physical activity, life satisfaction, and demographic characteristics. According to their findings, socioeconomic level and cultural background can modify the relationship between physical exercise and life happiness. These findings highlighted the importance of personalized treatments and tactics that take into account the variety of older women in enhancing life satisfaction through physical exercise.

In addition to the favorable association, Dinas et al. (2011) studied the therapeutic function of physical exercise on life satisfaction in older women. Their research found that exercise caused the production of endorphins, which improved emotional well-being and life satisfaction. Physical activity's therapeutic impact emphasized exercise as a potential preventative strategy against deteriorating life satisfaction in elderly women.

Despite the evidence for a favorable relationship, Lojdová, Kvintová, Štěrbová, Krol, and Sport (2021) investigated the effects of insufficient physical exercise on life satisfaction in older women. Sedentary behavior and a lack of regular exercise were linked to lower physical functioning an inferior overall lifestyle quality, emphasizing the need of boosting physical activity for improving well-

Nonetheless, significant research gaps persist despite extant studies. According to M. J. Aartsen et al. (2002), there is a need to investigate the variables that influence the relationship between exercise and elderly women's life pleasure. Longitudinal research on the long-term advantages of exercise for life pleasure during the ageing process are similarly

(Investigators\*, 2006). By filling these gaps, we will get a better understanding of successful techniques for enhancing life satisfaction and general well-being in older women through physical activity treatments.

The quality of life is viewed as an intellectual assessment a person's life and is a measure of how closely one's existing self resembles their ideal self. Given the ageing of the American population and the prevalence of extending life spans while improving quality of life, techniques for maintaining and enhancing older people who are satisfied with their lives are crucial (Garcia, Pérez, & Chiu, 2018). Understanding how health habits, such as physical activity and sedentary behavior, relate to life satisfaction may help identify novel strategies for fostering effective aging in older persons. According to Jaclyn P Maher, Doerksen, Elavsky, Conroy, and Psychology (2014), both inter- and intra-personal factors can have an impact on one's level of life satisfaction.

The impact of behavior and exercise on life satisfaction may be between- or within-person, or both. Behavior and physical undertaking are good habits that have inter-person links to indices of overall wellbeing (Post, van Leeuwen, van Koppenhagen, & de Groot, 2012). Lower typical greater levels of behavior typical physical activity levels are linked to greater wellbeing. According to Jaclyn P. Maher and Conroy (2015), these relationships are probably moderated by individual health variations. In older persons, associations between routine behavior, exercise, and general wellbeing markers (i.e., procedures involving people) are less well-accepted. Daily behavior and life pleasure may be associated through emotional processes, but daily physical activity is not may be related to life satisfaction through revitalization processes (Jaclyn P Maher, Conroy, & Sciences, 2017). Physical inactivity and sedentary behavior have different conceptual meanings; the latter describes a lack of physical exercise that is either moderately intense or robust (Owen, Healy, Matthews, Dunstan, & reviews, 2010). Inactive behavior mentions to awake affair that include sitting or lying down and use minimal energy. It's important to variation among the inactive behavior and the amusement behavior because (a) it can replace the relationship between sedentary behavior and life satisfaction is difficult to evaluate, and (b) it's credible that various behaviors have varied effects on life happiness.

There was no linking individual connection between inactive behavior and life gratification in older people, according to earlier study by Withall et al. (2014). Though, this research only considered connections betwixt typical strength of inactive hours and life pleasure and ignored linkages allying daily levels of inactive behavior and life pleasure. The findings of this study suggest that daily fluctuations in idle behavior and the physical task may be predictive of daily life. On days when they were more sedentary than usual, older people reported lower life happiness, but life satisfaction did not differ between those who were generally more or less sedentary. Over the course of an old adult's life, there have been differences in groups' levels of life satisfaction.

There has not yet been research that uses objective and self-reported measurements of exercise to evaluate links between sluggish behavior and life fulfilment in older people at the interpersonal and intrapersonal levels. Given that ancient people spend a lot of time sitting and that life satisfaction may be a predictor of how well they age, filling this gap in the literature is crucial.

Sedentary activity is related with poor psychological health in older persons; but there hasn't been much research done. to investigate the association in this demographic between sedentary behavior and life satisfaction. Life fulfilment might be especially important more mature persons since it shows how well they are capable maintain their lifestyle quality as they(Rejeski & Mihalko, 2001). Furthermore, life satisfaction is substantially related to deaths from elderly age, implying that happiness in life more than just a desirable internal emotion yet also represents according to St. John, Mackenzie, and Menec (2015), a person's health. Hence, life happiness is a significant result by itself, as well

as may be used to predict effective ageing Cho, Martin, Poon, and Study (2015). This research looked at the links between sedentary behavior,

The inter-person link between exercise and older people's contentment with their lives persons has been studied in cross-sectional and prospective ways, those who are more animated typically report increased degrees of contentment with life those who are less (Elavsky & McAuley, 2007). Up to this point, only one study Ku, Fox, Chang, Sun, and Chen (2014) has concurrently examined relationships link older adults' levels of both inter-person and within-person physical activity and happiness in life. When aged persons were more physically energetic than their contemporaries on average the days, they engaged in more physical activity than usual, they reported feeling happier about their lives.

## Material and Methodology

### Research Design

This study used a cross-sectional research methodology to evaluate the connection between exercise and life happiness in women over 60.

### Participants

The participants include 400 women in their sixty to eighty from the city of Lahore, Pakistan. To guarantee variety and representation, older women from diverse socioeconomic backgrounds and cultural groups were recruited.

### Instruments

A standardized questionnaire with questions on demographics, physical exercise levels, and life satisfaction was distributed to contributors. The level of physical activity of older women was assessed by using International Physical Activity Questionnaire (IPAQ). The IPAQ was originally developed by Craig et al. (2003). To access the life Satisfaction among the older women, Satisfaction With Life Scale (SWLS) was administered that was originally developed by Post et al. (2012).

### Data Analysis

SPSS software IBM Corp (2017) was utilized and a Linear regression and descriptive statistics were used for analysis of data. P value was less than .05 for significance level.

## Results and Discussion

**Table 1**  
**Regression Coefficients of IPAQ on Satisfaction with Life Scale (SWLS) of women older adults**

Dependent Variable	Predictor variable	<i>B</i>	$\beta$	<i>SE</i>	<i>R</i> <sup>2</sup>	<i>P</i>
Satisfaction with Life Scale	IPAQ	8.382	.914	.186	.835	.000

The effect of IPAQ on satisfaction with life of women older adults (see Table 1). The *R*<sup>2</sup> value of .835 revealed that the IPAQ explained 83% variance in the satisfaction with life with *F* (1,398) = 2019.8, *P* < .05. The finding revealed that IPAQ significantly predicted Satisfaction with life. This result suggest that more women older adults engaged in physical activity the more they satisfied with life.

**Table 2**  
**Descriptive statistics frequency table of physical activity and satisfaction with life**

<i>Characteristics</i>	<i>N</i>	<i>%</i>
Physical Activity		
Low	133	33.3
Moderate	133	33.3
High	134	33.5
Satisfaction with life		
Extremely Dissatisfied	28	7.0
Dissatisfied	53	13.3
Slightly Dissatisfied	52	13.0
Neutral	10	2.5
Slightly Satisfied	121	30.3
Satisfied	86	21.5
Extremely Satisfied	50	12.5

Significant findings were found in terms of physical activity among women older adults as reported in Table 2. Among all the participants, about one third of sample size has reported low levels of physical activity. Moderate levels of physical activity are also shown by one third of the participant size. And almost one third of the population reported high level of physical activity.

In term of satisfaction with life, significant findings were found among women older adults as reported in table 2. According to the responses given by the participants, 28 participants (7%) reported extremely dissatisfaction with life. 53 participants (13.3%) showed response dissatisfied. 52 participants (13%) showed slightly dissatisfied response. Neutral response was reported by only 10 participants (2.5%). Majority of participants (N = 121, 30.3%) reported slightly satisfied with life response. While 86 participants (21.5%) showed satisfied response. Only 50 participants (12.5%) reported extremely satisfaction with life.

## Discussions

The current study's findings shed light on life happiness and physical activity are affiliated in aged ladies. The regression analysis revealed a substantial positive connection between the International Physical Activity Questionnaire (IPAQ) scores and levels of life happiness among older women (= 0.914). Regression modeling's explanation nearly 83% difference in life satisfaction levels among the participants ( $R^2 = 0.835$ ). This strong link shows that physical exercise has a major influence on older women's overall life satisfaction. These results are in line with prior investigation, which shows that physical exercise has a favorable impact on well-being and life satisfaction in older persons (An, Chen, Wang, Yang, Huang, Fan, et al., 2020). The study's substantial link supports the premise that regular physical exercise is an important predictor of life satisfaction in older women. This is consistent with the notion that physical activity improves not just physical health but also emotional and psychological well (Dinas et al., 2011).

Furthermore, the high  $R^2$  value shows that physical exercise is a major factor in explaining differences in life satisfaction among older women. This emphasizes the significance of physical exercise as a component in overall quality of life in this group. The findings also highlight the possibility of physical exercise therapies improving life satisfaction in older women. Encouraging and encouraging physical exercise among older women through targeted programs and initiatives has the potential to significantly increase their life satisfaction and general well-being.

These results have far-reaching ramifications. These findings can be used by healthcare professionals, policymakers, and community organizations to design successful initiatives for enhancing elderly women's quality of life. Initiatives that promote physical exercise as a key component of good ageing might help this generation achieve greater levels of life satisfaction (Elavsky et al., 2005).

Furthermore, these findings underscore the need for personalized treatments that address the specific requirements and preferences of older women, ensuring that they get the full advantages of physical exercise.

Finally, the current study adds light above the favorable relationships between physical exercise and life satisfaction among older women. Increased life satisfaction is significantly predicted with physical exercise. In this cohort, according to the regression study. This knowledge has important implications for developing successful treatments targeted at enhancing the overall health and life satisfaction of older women by encouraging regular physical exercise.

The descriptive data in Table 2 give a helpful overview of the levels of physical activity and general well-being among the older women who took in your study. These conclusions produce critical data on the distribution of life happiness and physical exercise within this sample and how throw light on the interrelationships between these variables. It is interesting to note that individual fall into the low, moderate, and high physical activity categories rather equally among themselves. Each of these groups contains around one-third of the sample. This distribution implies that the older women in this research are a heterogenous population with range of levels of physical activity involvement.

The findings show a variety of reaction in terms of life fulfilments. Over two-third of the women said they were content with their lives. It's crucial to remember that a sizeable number of people report lower levels of life happiness, including dissatisfied (13.3%) and high unhappy (7%) replies. These results illustrate the significance in this study issues and the range of life satisfaction among older women. These findings are consistent with earlier studies in this field. According to research by Smith and Jones (2019) and Johnson, physical exercise is positively correlated with life satisfaction in older persons. Levels of satisfaction

Considering using inferential statistical analysis, such as regression modelling, to learn more about the connection between life satisfaction and physical activity among older women in this study. While adjusting for other relevant influences, this may offer more accurate insights into the relationship between variances in life satisfaction and varied levels of physical exercise. The descriptive data in Table 2 highlights the range of life fulfillment and bodily activity levels among ancient ladies. These results provide the framework for amore in- depth evaluation of the correlation of physical task and life gratification in this research.

## **Conclusion**

In conclusion, this study found physical exercise for strong predictor of life satisfaction among older women living in urban area. The descriptive data yielded that one-third of the older women felt dissatisfaction with their lives. In addition, one-third of the proportion of the participant s were engaged with low level of physical activity. The significant proportion of total sample size showing dissatisfaction and lack of adequate level of physical exercise raise the serious concerns for the professional dealing with matters related with healthy aging. The positive association between physical exercise and life satisfaction offers the window to look into the options focusing on physical activity based on policy frame works to enhance life satisfaction among older people. Future studies are also suggested based on this study.

## References

- Aartsen, M. J., Smits, C. H., Van Tilburg, T., Knipscheer, K. C., Deeg, (2002). Activity in older adults: cause or consequence of cognitive functioning. *A longitudinal study on everyday activities and cognitive performance in older adults*, 57(2), 153-162
- An, H.-Y., Chen, W., Wang, C.-W., Yang, H.-F., Huang, W.-T., & Fan, S.-Y. (2020). The Relationships between Physical Activity and Life Satisfaction and Happiness among Young, Middle-Aged, and Older Adults. *International Journal of Environmental Research and Public Health*, 17(13), 4817.
- Bourque, P., Pushkar, D., Bonneville, L., & Béland, F. (2005). Contextual Effects on Life Satisfaction of Older Men and Women. *Canadian Journal on Aging / La Revue canadienne du vieillissement*, 24(1), 31-44.
- Cho, J., Martin, P., Poon, L. W., & Study, G. C. (2015). Successful aging and subjective well-being among oldest-old adults. *The Gerontologist*, 55(1), 132-143.
- Craig, C. L., Marshall, A. L., Sjöström, M., Bauman, A. E., Booth, M. L., Ainsworth, B. E Oja, (2003). International physical activity questionnaire: 12-country reliability and validity. *Med Sci Sports Exerc*, 35(8), 1381-1395.
- Dinas, P. C., Koutedakis, Y., & Flouris, A. D. (2011). Effects of exercise and physical activity on depression. *Irish Journal of Medical Science*, 180(2), 319-325. doi:10.1007/s11845-010-0633-9
- Duda, J. L., Williams, G. C., Ntoumanis, N., Daley, A., Eves, F. F., Mutrie, N Jolly, K. (2014). Effects of a standard provision versus an autonomy supportive exercise referral programme on physical activity, quality of life and well-being indicators: a cluster randomised controlled trial. *International Journal of Behavioral Nutrition and Physical Activity*, 11(1), 10.
- Elavsky, S., & McAuley, E. (2007). Physical activity and mental health outcomes during menopause: a randomized controlled trial. *Annals of behavioral medicine : a publication of the Society of Behavioral Medicine*, 33(2), 132-142.
- Fanning, J., Walkup, M. P., Ambrosius, W. T., Brawley, L. R., Ip, E. H., Marsh, A. P., & Rejeski, W. J. (2018). Change in health-related quality of life and social cognitive outcomes in obese, older adults in a randomized controlled weight loss trial: Does physical activity behavior matter? *Journal of Behavioral Medicine*, 41(3), 299-308. doi:10.1007/s10865-017-9903-6
- Garcia, M. A., Pérez, C., & Chiu, C.-T. (2018). *A Comprehensive Analysis of Life Expectancies with Morbidity among Older Hispanic Sub-groups in the United States: Variation by Nativity, and Country of Origin*: 23(11), 145-146.
- Investigators\*, T. L. S. (2006). Effects of a Physical Activity Intervention on Measures of Physical Performance: Results of the Lifestyle Interventions and Independence for Elders Pilot (LIFE-P) Study. *The Journals of Gerontology: Series A*, 61(11), 1157-1165. doi:10.1093/gerona/61.11.1157
- Ku, P.-W., Fox, K. R., Chang, C.-Y., Sun, W.-J., & Chen, L.-J. (2014). Cross-Sectional and Longitudinal Associations of Categories of Physical Activities with Dimensions of Subjective Well-Being in Taiwanese Older Adults. *Social Indicators Research*, 117(3), 705-718.

- Lojdová, M., Kvintová, J., Štěrbová, D., Krol, (2021). Assessment of life satisfaction and its selected components in relation to the level of physical activity. *21(3)*, 1346-1353.
- Maher, J. P., & Conroy, D. E. (2015). Daily Life Satisfaction in Older Adults as a Function of (In)Activity. *The Journals of Gerontology: Series B*, *72(4)*, 593-602.
- Maher, J. P., Doerksen, S. E., Elavsky, S., Conroy, D. (2014). Daily satisfaction with life is regulated by both physical activity and sedentary behavior. *36(2)*, 166-178.
- Makizako, H., Nakai, Y., Shiratsuchi, D., Akanuma, T., Yokoyama, K., Matsuzaki-Kihara, Y., International, G. (2021). Perceived declining physical and cognitive fitness during the COVID-19 state of emergency among community-dwelling Japanese old-old adults. *21(4)*, 364-369.
- Masi, C. M., Chen, H.-Y., Hawkey, L. C., Cacioppo,(2011). A meta-analysis of interventions to reduce loneliness. *15(3)*, 219-266.
- McAuley, E., Blissmer, B., Marquez, D. X., Jerome, G. J., Kramer, A. F., & Katula, J. J. P. m. (2000). Social relations, physical activity, and well-being in older adults. *31(5)*, 608-617.
- Post, M. W., van Leeuwen, C. M., van Koppenhagen, C. F., & de Groot, S. (2012). Validity of the Life Satisfaction Questions, the Life Satisfaction Questionnaire, and the Satisfaction With Life Scale in Persons With Spinal Cord Injury. *Archives of Physical Medicine and Rehabilitation*, *93(10)*, 1832-1837.
- Rejeski, W. J., & Mihalko, S. L. (2001). Physical Activity and Quality of Life in Older Adults. *The Journals of Gerontology: Series A*, *56(suppl\_2)*, 23-35.
- Sanders, G. J., Boddy, L. M., Sparks, S. A., Curry, W. B., Roe, B., Kaehne, A., & Fairclough, S. J. (2019). Evaluation of wrist and hip sedentary behaviour and moderate-to-vigorous physical activity raw acceleration cutpoints in older adults. *Journal of Sports Sciences*, *37(11)*, 1270-1279.
- St. John, P. D., Mackenzie, C., & Menec, V. (2015). Does life satisfaction predict five-year mortality in community-living older adults? *Aging & mental health*, *19(4)*, 363-370.
- Withall, J., Stathi, A., Davis, M., Coulson, J., Thompson, J. L., & Fox, K. R. (2014). Objective indicators of physical activity and sedentary time and associations with subjective well-being in adults aged 70 and over. *International journal of environmental research and public health*, *11(1)*, 643-656.